#  <br> COLONY OF MAURITIUS 

## Annual Report

OF THE

## Medical and Health Department

1956
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Port Louis, Mauritius
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## Annual Report

OF THE

## Medical and Health Department <br> 1956

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## TABLE OF CONTENTS

Page
Part I. General Review ..... 1
Part II. Functions and Organisation of the Department ..... 10
Administration ..... 11
Part III. Curative and Investigative Services ..... 14
I. Hospitals ..... 14
II. Out-patients ..... 20
III. The Laboratory Service ..... 21
IV. Blood Transfusion Service ..... 21
Part IV. Health Services ..... 22
I. Vital Statistics ..... 22
II. Public Health ..... 25
A. Communicable and Infectious Diseases ..... 25
B. Nutrition and Nutritional Diseases ..... 32
C. Food in relation to Health and Disease ..... 33
D. General Measures of Sanitation ..... 33
E. Port Health and Quarantine ..... 34
F. Water Supplies ..... 35
G. Schools Medical Service ..... 36
Part V. Maternal and Child Health. ..... 38
Part VI. Prisons ..... 40
Pakt VII. The Dependency of Rodrigues ..... to
Index to Appendices, Tables and Figures
Appendix I. Central Health Laboratory ..... 43
II. Victoria Hospital Branch Laboratory ..... 55
III. Civil Hospital Branch Laboratory ..... 57
IV. Government Chemist ..... 59
Table I. Statistics of Hospitals ..... 61
II. Statistics of Morbidity and Mortality- ..... 62
III. Main causes of Morbidity ..... 72
IV. Hospital Statistics by Group of Diseases ..... 73
V. Total births and deaths for period 1940-1956 ..... $7+$
VI. Deaths from principal causes 19+7-1956 ..... 75
VII. Summary of Work performed by the Health Inspectorate ..... 77
VIII. Shipping movements in Port Louis Harhour ..... 78


# Annual Report of the Medical and Health Department, 1956 

## PART I

## General Review

The Island lies between latitude $19^{\circ} 50$ and $20^{\circ} 31$ South and longitude $57^{\circ} 18$ and $57^{\circ} 48$ East of Greenwich. The total length North to South is nearly 39 miles and its breadth East to West is 29 miles. The area of the island is 716 square miles and that of the islets round the coast 4 square miles, making a total of 720 square miles ( $460 ; 800$ acres). The ground rises to an elongated central plateau, lving roughly North-South, the altitude of which above sea level is $1,800-$ 1,900 feet. It is bounded on the North, East and South-West by abrupt and broken mountain ridges. On the South and South-East it slopes gradually to the sea. The highest mountain peak is 2,711 feet.
2. Although Mauritius lies just within the tropics, its climate is on the whole comparativelv mild and equable. There are, however, very sensible variations of climate in the different parts of the island. The maximum shade temperature recorded on the northern plains ( 180 feet above sea-level) has never exceeded $95^{\circ} \mathrm{F}\left(35^{\circ} \mathrm{C}\right)$ and over the central tableland ( 1,800 feet) the maximum seldom reaches $80^{\circ} \mathrm{F}\left(27^{\circ} \mathrm{C}\right.$ ), but the high relative humidity renders the heat oppressive at certain times of the year and causes considerable discomfort, especially in the lowlands. For the same reason, the winter in the highlands is uncomfortable, though the temperature never falls below $45^{\circ} \mathrm{F}\left(70^{\circ} \mathrm{C}\right)$.
3. Rainfall is abundant, but varies considerably in different parts. The annual mean varies from less than 30 inches on the north and west coast to 150 inches in parts of the central plateau, where in some years the rainfall has been known to reach nearly 200 inches. Tropical cyclones are frequent in the vicinity of the Island during the summer months (December to April) and have at times caused considerable damage to crops, trees and structures, and on rare occasions, even loss of life. The last cyclone to pass over Mauritius was in 1945, when wind forces of about 100 miles per hour were experienced.
4. The following notes summarize the main weather features for the year 1956:-
(a) Cyclones.-Only the cyclone of January 23 rd presented any threat to Mauritius and it moved past the island at a distance of over 200 miles to the north giving only fairly strong winds which caused no appreciable damage.
(b) Rainfall-Amounts near normal fell in January, and February was fairly wet but thereafter rainfall was below normal in every month except December. April was unusually dry with less than half the usual average of 10 inches for the whole island. In the winter and spring months July to November, the average fall over the island was about 10 inches for the four months instead of the normal 18 inches. By November therefore, water storage was very low, but quantities were replenished in December.
(c) Temperatures and sumshine.--Variations of temperature from the seasonal normal are יisually very low in Mauritius, where an oceanic climate is enjoyed. In 1956 the summer and autumn were considerably cooler than normal ; in particular during the mid-summer month of Febritury, day temperatures were $1 \frac{12^{\circ} \mathrm{C}}{}$ low and in January and March nearly $1^{\circ} \mathrm{C}$ low. On the other hand, after July and until the end of the year, temperatures were somewhat above normal, mainly owing to the lack of the fresh trade winds which are characteristic of winter and early autumn.
The duration of bright sunshine was 6 per cent greater than normal for the whole year. August and November had slightly less than normal but in all other months amounts were high ; from March to June amounts were some 10 per cent higher than normal, and October was particularly sunny with nearly 300 hours of sunshine over most of the island.
(d) Humidity. - The low rainfalls of April and August to November were reflected in relative humidities 5 to 8 per cent below the seasonal normal.
5. The population lives mainly on the proceeds of sales of its sugar: the whole economy being at present dependent on this single crop which constitutes some 97 per cent of the domestic exports. The year 1956 was again one of prosperity, the sugar crop having reached a further record figure: 571,893 tons as compared to 533,341 for 1955 and 498,742 for 1954.

The most recent plan concerned with the development of the Colony's resources has taken into account an appreciable extension of the tea industry and this project, when completed, should naturalls strengthen the economy of the island. The bulk of the food required contunues to be imported as Mauritius produces, apart from regetables and fruits, insignificant quantities of rice, maize, potatoes and other root crops.
6. First and foremost is the problem of the rapid growth of population outstripping the available medical facilities. The live births during the year numbered 24,910 , a figure which gives a rate of 43.8 per 1,000 of the mid-year population and represents an increase of 1,940 on the number of births for 1955 and an increase of 3,525 over the average number of births for the ten years preceding 1956.

Mauritius is already overpopulated in relation to its resources, and the increase in the natural growth of the population is taking place at an exorbitant rate in an island which is only 720 square miles in area. The number of inhabitants is now well over three times what it was a century ago and has augmented from 428,273 in 1946 to 579,123 in 1956.
7. The Government continued to provide facilities for postgraduate specialisation of professionals and during the year under review one Medical Officer passed the final examination for the F.F.A., two the primary F. R.C.S., while a fourth obtained the D. M.R.D. Two more Medical Officers were following the course leading to the D.P.H., one specialising in pathology with the intention of sitting for the D.C.P. in 1957 and another was preparing for the D. P. M. and following a course on electro-encephalography.
8. Development and expansion of the hospital services continued without break in I956. The most notable event was the opening on the 30th September of the New Orthopaedic Centre by Her Royal Highness the Princess Margaret an institution which, when fully completed, will have 216 beds. Her Royal Highness graciously consented to the new hospital being named "The Princess Margaret Orthopaedic Centre.',

Earlier in September, Lady Scott opened the first residential training school for nurses which has been built near the Victoria Hospital in Quatre Bornes. The First Health Centre at Rose Hill opened at the beginning of February, and towards the end of the year work was commenced on a new block, clestined to accommodate sixty patients at the Mental Hospital, Beall Bassin, and on an Ophthalmic Unit which will comprise an out-patient department, an operating theatre and ward accommodation for thirty patients.
9. The medical capital building programme was revised at the beginning of the year and provides for a total estimate of just over $10,000,000$ rupees. The following projects were put in hand immediately so as to enable actual construction to start as early as possible in 1957 : a tuberculosis hospital of 190 beds with, as an adjunct, a large out-patient clepartment, a new central public health laboratory, a large out-patient and administrative block for the Civil Hospital, Port Louis, and a new hospital of 68 beds for the dependency of Rodrigues.
10. The general ont-patient dispensary service was strengthened by the opening of a new modern dispensary to replace the temporary arrangements which have been made for a static dispensary at Piton in the district of Riviere du Rempart. This service provides, in addition to the general out-patient clinics at the ten hospitals of the Colony, 37 outdoor dispensaries open daily to patients and four mobile units which visit outlying areas at regular intervals. Maximum use continues to be made of the satisfactory network of out-patient departments in order to save beds and to give immediate attention to patients requiring medical care.
11. The figures given hereunder show the increase in the demands made on the services provided:-

|  | Year |  | In-paticnts all hospitals | Ont-pal. slatic disponsarits | Onl-pat. mobile dispensaries | Surgical Operations | Examination made at the P.H Laboratory |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1930 | ... | $\ldots$ | 26,773 | 189,656 | - | 6,017 | 14,199 |
| 1935 | ... |  | 27,908 | 270,726 | - | 7,509 | 9,269 |
| 1940 |  |  | 28,073 | 378,588 | - | 10,129 | not available |
| 1945 |  | ... | 27,321 | 293,621 | - | 8,377 | 20,522. |
| 1950 |  |  | 28,303 | 303,549 | 46,653 | 14,680 | 32,249 |
| 1956 |  |  | 30,971 | 501,072 | 81,822 | 39,544 | 118,118 |

12. The following health facilities were available in the island in 1956:-
A. Medical and Health Staff


## B. Governmemt Institutions

|  |  | No. of Iustitulious | No. of beds |
| :---: | :---: | :---: | :---: |
| General Hospitals | ... | 8 | 1,207 |
| Dispensaries (including 2 in the Prisons) | ... | 48 | - |
| Specialised Units:- |  |  |  |
| ( a) Maternity and Child Welfare Centres | ... | 9 | - |
| (b) Leprosariom |  | 1 | 62 |
| (c) Mental Hospital |  | 1 | 707 |
| (d) Orthopaedic Hospital |  | 1 | 157 |
| (e) Prisons Hospitals.. |  | 2 | 46 |

Mobile Units :-

| (a) Dispensaries | $\ldots$ | $\ldots$ | $\ldots$ | $\ldots$ | 4 units |
| :--- | :--- | :--- | :--- | :--- | :--- |
| (b) Ante-natal clinic | $\ldots$ | $\ldots$ | $\ldots$ | $\ldots$ | 1 unit |
| (c) Dental clinics | $\ldots$ | $\ldots$ | $\ldots$ | $\ldots$ | 2 units |

C. Private lnstitutions

Hospitals on sugar estates ... ... ... ... . 33
Dispensaries on sugar estates ... ... ... 8
Nursing Homes
13. The success of the preventive services is reflected in the figures published hereunder:-

| Year | Population | $\begin{aligned} & \text { Birth } \\ & \text { rate } \end{aligned}$ | Dcath rate | Infant mortality rate | Materinal mortality rate |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 1946 | 424,219 | 38.7 | 29.5 | $145 \cdot 2$ | 10.39 |
| 1947 | +32,422 | $43 \cdot 8$ | $20 \cdot 1$ | 113.9 | $5 \cdot 2.5$ |
| 1948 | +41,822 | $43 \cdot 1$ | 23.8 | 186.2 | $4 \cdot 13$ |
| 1949 | +4, 521 | 46.0 | 16.6 | 91.0 | $3 \cdot 79$ |
| 1950 | +64,735 | $49 \cdot 7$ | 13.9 | $76 \cdot 3$ | $3 \cdot 51$ |
| 1951 | 483,859 | $47 \cdot 5$ | 14.9 | 835 | $3 \cdot 24$ |
| 1952 | 501,469 | $48 \cdot 1$ | 14.8 | $80 \cdot 8$ | $3 \cdot 20$ |
| 1953 | 516,525 | 46.3 | 16.1 | 93.5 | 2.71 |
| 1954 | 530,461 | 41.3 | 16.0 | $81 \cdot 1$ | 170 |
| 1955 | ... 549,09+ | 11.8 | 12.9 | $67 \cdot 2$ | 1.47 |
| 1956 | ... 568,886 | $43 \cdot 8$ | 11.8 | $66^{\circ} 0$ | $2 \cdot 13$ |

14. Anremia and malnutrition continue to be one of the most serious public health problems in Mauritius. Following the visit in 1955 of Professor A. W. Woodruff, F. R. C. P., of the London School of Tropical Medicine and Hygiene, the World Health Organization agreed to provide technical assistance to enable the local nutrition problem to be fully investigated. The Organisation's Medical Haematologist arrived in August and started work immediately. A non-medical nutritionist was due to arrive early in 1957.
15. Tuberculosis is another problem which is coming with increasing prominence to the fore. During the year under review, the anti-tuberulosis work of the Health Department continued to expand, and a World Health Organization team consisting of one Medical Officer, one Statistician and one Public Health Nurse arrived in May to assist in a survey which was started some years before. The team carried out a tuberculin sensitivity survev from a andomly selected sample of about 8,200 persons living in the capital town of Port Louis and in 13 villages. Preliminary results confirmed previous findings that the frequencies of infection are higher in the capital than in the villages, with some indication that the frequency of infection increases with the size of villages. Preliminary findings showed that the pattern of tuberculin sensitivity in Port Louis and in the village populations is essentially the same: the prevalence of tuberculous infection increases with age, especially during adolescence, and is consistently higher in males.
16. It is expected that further assistance will be given in 1957 by World Health Organization in the form of specialised staff and equipment. The next step in the development of a tuberculosis control programme will be a comprehensive survey with a direct assessment of infectious cases in the population, by means of $X$-Ray and sputum exammations and there-after a case-finding campaign starting among the highly infected population of the capital, based on the Chest Clinic due to be constructed. In this connection, plans are being made for the building of the first Chest Clinic in Port Louis from a donation of the Board of Trustees of the Edgar Laurent Tuberculosis Fund.
17. A problem which has received a solution under the General Development Programme is that of improved water supplies, one of the basic requirements of public health anywhere. By the end of 1958, the whole of Mauritius will be supplied with filtered and chlorinated water and in addition, approval has been given to a proposal for the fluorjdation of water. To start with, a pilot scheme will be operated. Fluorine will be added to the extent of 0.6 p.p.m. to one of the supplies delivering $5,000,000$ gallons of water daily and the effects on the dependent population will be closely watched.
18. The year under review was favourable in regard to the incidence of infectious diseases. The only epidemic manifestation was a small outbreak of typhoid fever in the early weeks of the year in the District of Grand Port, which was quickly brought under control.
19. No cases of quarantinable diseases have occurred for a considerable time, but, as pointed out in previous years reports the frequency and speed of international traffic necessitate the maintenance of a well-organised port and airport health service to watch at the gates of the island. Malaria having now been mastered, and Acdes aegypli to all evidence completely eradicated, the quarantine service maintains constant vigilance to ensure that are not-re-introduced these insects or new inséct vectors imported.
20. The notification of 31 paralytic cases of poliomyelitis during the twelve months of the year came as a reminder that this disease which has caused so much damage since 1945 is an everpresent danger. Thanks to the assistance of Dr. J.H.S. Gear of the Poliomyelitis Research Foundation of Johannesburg, to whom we are all greately indebted, a survey of the immunity status of the island was carried out and the results obtained confirmed that children aged between 1 and 5 years are those most susceptible to the disease. Consideration is being given to the possibility of carrying out an island-wide polio vaccination campaign to protect children in the most vulnerable age groups.
21. The main duties of the School Health Service which looks after about 89,000 school children are to examine new entrants and leavers, children previously found defective and special cases referred by the teachers. The closest cooperation now exists between the staff of the School Health Service, the teaching Staff and the parents of school children, with the pleasing result that the state of cleanliness of the pupils has appreciably improved. The maximum attention possible with the present limited staff continues to be paid to the personal hygiene and nutrition of the school child and the enviromment of the schools. In particular, it is not yet possible to give to individual pupils all the attention one would wish. A school travelling dispensary administers minor treatments in rural areas. All primary school children receive a daily ration of sugared skimmed milk flavoured with cocoa; cases recommended by a Medical Officer get an increased ration of milk and/or additional nutrients such as yeast, Vitamin A plus Vitamin D Capsules and iron.
22. The Dental Service concentrated on the policy of directing most of its effort to work on school children and whenever possible, provided this was not detrimental to the School Health Service, preventive dentistry was offered to a number of expectant and nursing mothers. In addition, one of the Mobile Clinics gave dental attention on Saturdays, when the schools are closed; to the chronic sick at the Mental Hospital and at the Princess Margaret Orthopaedic Centre. A second Mobile Dental Clinic was put on the road early in 1956.
23. Alcoholism remains a major aetiological factor in the causation of mental diseases in males. Out of the 516 male patients admitted at the Mental Hospital during the year, 88 were suffering from alcoholic psychoses and in 48 cases alcohol was a contributing factor to mental derangement. Attention was drawn in last year's report to the increase in the number of gandia (cannabis) addicts coming under the care of the psychiatrists. Fifteen cases were registered among the admissions to the Mental Hospital in 1956, as compared to 14 in 1955 and 3 in 1954.
24. Expansion of the Maternal and Child Health Service has continued despite staff difficulties. More assistance was given through the various static centres, the mobile units, the hospitals and the domiciliary midwifery service. Three new static centres were opened in the rural areas at Surinam, Bambous and l'Escalier respectively. All the personnel engaged on maternal and child health provided a vital, but necessarily unpublicised, contribution in the control of venereal diseases.
25. On the subject of venereal diseases, it is gratifying to publish the following figures relating to the treatment of cases of gonorrhoea in all the hospitals of the Colony:-

| Years |  |  | New Cases |  | Total cases |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |
|  |  |  | M | $F$ |  |
| 1951 | $\ldots$ | ... | 49 | 1 | 50 |
| 1952 | ... | ... | 20 | 6 | 26 |
| 1953 | $\ldots$ |  | 13 | 1 | 14 |
| 1954 | ... |  |  | 1 | 17 |
| 1955 | ... | ... | 9 | 4 | 13 |
| 1956 | ... |  | 11 | 1 | 12 |

26. The Director of Medical Services is still acting as Registrar of the Blind. The total number of persons appearing on the register up to 1956 , was 57 , distributed as follows:-

| Age Group | Years | ... | 1-4 | 5-14 | 15-24 | 25-44 | 45-64 | 65-74 | Total |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Female | ... | ... | 1 | - | 3 | 5 | 21 | 3 | 33 |
| Male ... | ... | ... | - | 2 | 2 | 11 | 9 | - | 24 |
|  | Total | ... | 1 | 2 | 5 | 16 | 30 | 3 | 57 |

It appears from the above figures that the incidence of blindness in Mauritius is one of the lowest in the World, the rate beiug 10.02 per 100,000 of the population, calculated on the mid-year population which was 568,886 .
27. The Welfare of the Blind and the Prevention of Blindness Society, which is financially assisted by the Government and of which the Director of Medical Services is a member, is building a residential training centre for the blind at Beau Bassin. It is hoped that this fine building will be completed during the second half of 1957.
28. The survey of deaf and dumb children started on thee initiative of the Health Department continues and at the end of the year 55 names appeared in the register.
29. Finance.-The revenue of the Government for the financial year 1955-56 was Rs. 143,016,922, of which Rs. 138,572 were recaived through the Medical and Health Department. The total expenditure on the Medical and Health Services was Rs. 11,023,254. This represents a sum of Rs. 19.69 per head of the estimated population at the 31st December, 1955.
30. Legislation.-The following measures were finalised and became law during the year under review :-
(a) The Public Health (Amendment) Ordinance 1956 (No. 18 of 1956) amending Section 193 of the Public Health Ordinance (Cap. 277) respecting the fees payable tor permits to sell meat in public markets;
(b) The Medical Practitioners (Amendment) Ordinance 1956-to amend the Merical Practitioners Ordinance by making provision for the registration of Medical Practitioners sent by the World Health Organization to this Colony with a view to assisting the Public Health Department in connection with some of its development schemes.
(c) The Dangerous Drugs Ordinance 1950 (Application) Proclamation 1956 (No. 8 of 1956) extending the application of Part IV of the Dangerous Drugs Ordinance 1950 to certain drugs;
(d) The Dangerous Drugs Ordinance 1950 (Application) (No. 2) Proclamation 1956 (No. 24 of 1956), extending the application of Part IV of the Dangerous Drugs Ordinance 1950 to certain drugs ;
(e) Government Notice No. 29, beng Regulations made under sections 155 and 193 of the Public Health Ordinance (Cap. 277) to fix the charges to be levied at hospitals for X-Ray examinations and treatment by X-Ray and Radium Therapy ;
(f) Government Notice No. 41, being Rules made under Section 6 of the Quarantine Ordinance 1953; for setting out the fees payable to the Quarantine Authority in respect of quarantine services ;
(g) Government Notice No. 48, being Regulations made under item (a) of paragraph I of Part VI of Section 193 of the Public Health Ordinance (Cap 277), fixing the tariff for the re-opening of a vault and digging of a grave;
(h) Goverment Notice No. 49, being Regulations made under item (a) of paragaaph (1) of Part VI of Section 193 of the Public Healih Ordinance (Cap. 277) fixing the charges for night soil service performed on private premises in the towns of Curepipe and in the village of Phoenix.
(i) Government Notice No. 58, being Regulations made under paragraph (5) of Part V of Section 193 of the Public Health Ordinance (Cap. 277), fixing the rates to be charged for the monthly hire of stalls or spaces in public markets.
(j) Government Notice No. 59, being Regulations made under paragraph (15) of Part V of Section 193 of the Public Health Ordinance (Cap. 277), fixing the annual fee to be paid for a permit to sell meat.
(k) Government Notice No. 60, cited as the Public Health (slaughter-houses) (Amendment) Regulations 1956, fixing the tariff of fees or charges to be levied for the killing and preparation for sale of slaughtered animals.
(l) Government Notice No.77, being Regulations made under Section 4 of the Quarantine Ordinance 1953, amending Regulations 2 and 4 of the principal Ordinance.
(m) General Notice No. 980, made under Section 161 of the Public Health Ordinance (Cap. 277), to select and appoint a portion of land to be used as a public cemetery at Bambous.
31. The suicide mortality rate for the year under review was 6.68 per 100,000 of the population. The rate in respect of each of the ten years preceding 1956 is given below:-

|  | Year |  | Rate per 100,000 <br> populationo |
| :---: | :---: | :---: | :---: |
| 1946 | $\ldots$ | $\ldots$ | 7.31 |
| 1947 | $\ldots$ | $\ldots$ | 11.56 |
| 1948 | $\ldots$ | $\ldots$ | 7.92 |
| 1949 | $\ldots$ | $\ldots$ | 8.87 |
| 1950 | $\ldots$ | $\ldots$ | 0.45 |
| 1951 | $\ldots$ | $\ldots$ | 7.23 |
| 1952 | $\ldots$ | $\ldots$ | 5.38 |
| 1953 | $\ldots$ | $\ldots$ | 5.22 |
| 1954 | $\ldots$ | $\ldots$ | 6.59 |
| 1955 | $\ldots$ | $\ldots$ | 9.10 |

32. Visitors from overseas included:-

Mr J. Hamon, Research Entomologist, Ministère de la France d'Outre mer, Paris.
Mr. Jean Dupoirieux, Tuberculosis Specialist, Reunion.
Miss Lyle Creelman, Chief of the Nursing Section, World Health Organization, Geneva.
Dr Kenneth Martin, World Health Organization Representative, East African area.
Miss D. Rittner, Liaison Officer for Mauritian Students.

Mr Neale B. S. Hewett, U.N.I.C.E.F. representative, East African area.
Mr W. H. Chinn, Social Welfare Adviser to the Secretary of State.
It is pleasant to report that Mauritius continues to attract distinguished visitors from abroad, who come to advise on or study our health problems, and that its health problems and archievements are becoming better known over the world than they were a few years ago.
33. Voluntary workers have extended help in many ways to the Health Department and tribute is paid to the many private citizens whose contribution has been valuable. The work of the following societies and organizations is gratefully acknowledged:-

The Maternity and Child Welfare Society
The Mauritius Branch of the British Red Cross Society
The Tuberculosis Society
The St. John Ambulance Association
The Stretcher Bearers Association
The Friends of Moulin a Poudre
The Welfare of the Blind and the Prevention of Blindness Society.

## PART II

## Functions and Organisation of Department

34. The functions of the Medical and Health Department are :-
(a) To investigate the influence of Social, environ mental and domestic factors on the incidence of human disease and disability ;
(b) To plan and carry out measures for the promotion of health ;
(c) To institute and maintain measures for the prevention of diseases;
(d) To provide a quarantine service to prevent the introduction of infectious disease by sea or air ;
(e) To provide facilities for treatment of disease, including mental disease, by maintenance of hospital and dispensary services;
(f) To make provision for the rehabilitation of the disabled;
(g) To control the practice of medicine, dentistry and pharmacy;
(h) To provide facilities for the training of nurses, midwives and sanitarv officers;
(i) To advise local authorities regarding their health services and to inspect those services;
(j) To prepare and publish reports and statistical or other information relating to health.

## Administration

## Staff

35. The activities of the Department are co-crdinated by the Director of Medical Services assisted by two Deputies. The official establishment staffing and operating the preventive, curative and investigative services consists of :-

3 Medical Superintendents
8 Specialists (1 vacant)
2 Part-time specialists
2 Pathologists (1 vacant)
2 Senior Medical Officers of Health
2 Medical Officers of Health (2 vacant)
44 Medical Officers (14 vacant)
1 Woman Medical Officer
3 Schools Medical Officers (2 vacant)
5 Part-time Medical Officers i/c Mobile Dispensaries (1 vacant)
3 Temporary Medical Officers
1 Assistant Orthopædic Surgeon
2 Assistant Radiologists (1 vacant)
2 Assistant Tuberculosis Officers (1 vacant)
2 Assistant Anæthetists (1 vacant)
4 Dental Surgeons
2 Chemists (1 vacant)
2 Pharmacists
1 Rehabilitation Officer
1 Principal Matron
4 Matrons
1 Superintendent of Midwives
2 Physiotherapists
1 Assistant Superintendent of Midwives
1 Assistant Matron
2 Occupational Therapists (1 vacant)
19 Laboratory Assistants (1 vacant)
38 Senior Dressers and Nurses (4 vacant)
434 Dressers and Nurses (87 vacant)
69 Midwives (6 vacant)
93 Hospital Attendants, Sisters of Mercy, Assistant Nurses, District Visitors, Village Health Workers, Radiographers (12 vacant)
5 Senior Sanitary Inspectors
1 Port Health Inspector
1 Officer i/c Harbour Disinfecting Station
62 Sanitary Inspectors, Assistant Inspectors and Market Inspectors (3 vacant)

2 Officers i/c Orthopredic Workshop and Attendant
1 Steward Quarantine Station
1 Transport Officer
2 Storekeepers
39 Clerks and Assistant Clerks
9 Typist Stenographers
19 Secretaries (3 vacant)
1 Registrar of Health Statistics, 1 Compiler.
Malaria Organisation
1 Medical Officer of Health
1 Entomologist
1 Malaria Survey Officer
1 Field Officer and 2 Assistant Field Officers
1 Senior Malaria Inspector
3 Maldria Inspectors Grade I and II
1 Laboratory Assistant
6 Junior Laboratory Assistants.
1,998 others, including storekeepers, headmen, drivers, field workers, labourers, watchmen etc.

## Personnel

36. The medical establishment was increased by 11 Medical Officers, 3 Specialists, 1 Assistant Radiologist, 1 Assistant Auaesthetist, 1 Assistant Tubercuiosis Officer, 1 Part-time Medical Officer, but 1 Specialist retired, 2 Deputy Directors went on final leave prior to retirement on reaching the agelimit and 1 Medical. Officer died. 10 Medical Officers were on leave in the United Kingdom, of whom one was studying for the Fellowship of the Faculty of Anaesthetists which he obtained during the year, one for the Diploma in Medical Radiology (Diagnosis) which he also obtained, two for the Fellowship of the Royal College of Surgeons of London, two for the Diploma in Public Health, one for the Diploma in Clinical Pathology and one for the Diploma in Psychological Medicine. After sitting for the D.P.M. Examination, the fast named officer will follow a course on electro-encephalography.
37. One Health Inspector completed a course on Health Education which he was taking under a fellowship granted by World Health Organization.
38. One member of the Radiology Division followed a course on maintenance of electro-medical equipment.
39. Two Mauritian girls were training at the Kent and Canterbury Hospital with a view to becoming State Registered Nurses. One male nurse was following a course on mental nursing. In Mauritius, 37 nurses and 2 health inspectors qualified during the year and there were 221 nursing students, 15 pupil midwives, 5 health cadets and 3 student radiographers in training.

## TRAINING OF MEDICAL AND HEALTH STAFF

40. Conditions and qualifications required are as follows :-
(a) No one may practise medicine and surgery in Mauritius unless he is the holder of either a qualification which renders him eligibie for registration in the United Kingdom or a state degree in medicine delivered by any of the Faculties of F rance ;
(b) Persons authorised to practise as pharmacists in the Colony are those possessing diplomas or certificates entitling them to practise as Pharmaceutical Chemists or Chemists and Druggists, or as Apothecaries in the United Kingdom, or provided with diplomas as chemists and druggists or pharmacists from foreign Universities or Colleges, and authorised by virtue of a commission issued to them by the Governor on the recommendation of the Pharmacy Board, to act as pharmacists in the Colony ; or persons who obtain a Colonial diploma of pharmacist under the provisions of the Pharmacy and Poisons Ordinance, 1955, and are authorised by the Governor as aforesaid, to practise as pharmacists ;
(c) The conditions governing the practice of dentistry are indentical to those applicable to doctors : the majority of the dentists have qualified in the United Kingdom;
(d) Nurses and midwives must be registered at the Medical and Health Department before being allowed to practise : only those trained in the United Kingdom and in Mauritius are eligible for registration ;
(e) Sanitary Inspectors trained in the United Kingdem or in Mauritius are employed by the Department and one local authority.

There are no facilities available locally for training doctors and dentists. Persons wishing to obtain the local diploma of pharmacist study under private tuition and have to pass an examination arranged by the Pharmacy Board under the Pharmacy and Poisons Ordinance, 1955. The training of nursing staff has since 1948 been raised to a standard much higher than that accepted in pre-war days, and the training course has been extended to three years for the General nursing certificate with an additional year for the midwifery certificate; examinations are set on a syllabus which is very similar to that of the United Kingdom. In the case of midwives, the training course extends over 18 months, one-third of that time being spent on the District Midwifery Service. After passing their final examination, nurses and midwives are generally employed by the Department where they acquire additional experience. A few resign to go into private practice or join the staff on sugar estate hospitals. Sanitary Inspectors are trained during 18 months on a syllabus similar to that of the Royal Sanitary Institute. After passing the final examination, they are all employed by the Medical and Health Department.

## The Pharmaceutical and Stores Section

41. Recognition must be given to the Pharmaceutical Laboratory of the Department which under the Senior Pharmacist performs work of great importance to every division of the Department. For the time being, the laboratory is temporarily accommodated at Victoria Hospital and, in view of the restricted space available, concentrates mostly on the preparation of infusion fluids and injections. Its work will be increased as soon as it can move to new accommodation which is due to become available early in 1958, and it is estimated that an important saving will be effected when the manufacturing programme can be expanded.
42. The Stores Section is in the charge of a Chief Storekeeper who is resporisible for storing and distributing drugs, clressings, bedding and clothing, surgical instruments and other equipment. The Senior Pharmacist is responsible for the whole pharmaceutical service and assists the Director of Medical Services in supervising the placing of orders for drugs and special dressings.

## PART III

## Curative and Investigative Services

## I. Hospitals

43. A simmary of the distribution of public hospitals and beds is given below:-

| Hospital |  | Number of beds |  |
| :---: | :---: | :---: | :---: |
| Civil Hospital, Port Louis | $\ldots$ | 410 |  |
| Victoria Hospital, Quatre Bornes | ... | 263 |  |
| Long Mountain Hospital | $\ldots$ | 66 |  |
| Poudre d'Or Hospital | $\ldots$ | 70 |  |
| Flacq Hospital ... | ... | 116 |  |
| Mahebourg Hospital | $\ldots$ | 105 |  |
| Souillac Hospital ... ... | ... | 97 |  |
| Moka Hospital ... ... | ... | 80 |  |
| Special Institutions :- |  |  |  |
| Mental Hospital ... | ... | 707 |  |
| Leper Settlement ... |  | 62 |  |
| Orthopredic Centre ... | ... | 157 |  |
| Grand Total | $\ldots$ |  | 2,133 |

44. Table I indicates the work performed at the various hospitals : 30,971 in-patients were treated during the year as compared with 29,383 in 1955, 31,048 in 1954 and 31,909 in 1953. In examining the above figures, it must not be inferred that the position is tending to become more stable. The demands on the available accommodation have since many years reached saturation point and it is not possible to do more with the staff and beds at the disposal of the Department. The public owes a debt of gratitude to the hospilal staff.
45. Several buildings are in the ccurse of construction and plans are at an advanced stage of preparation for many others. However encouraging future prospects are, the possibilities of architects and builders cannot yet equal the impatience of the departmental staff nor meet the increasing demands made by the public on the medical services
46. Pendirg the availability of additional beds, priority continues to be given to patients requiring immediate curative treatment.
47. The revised hospital expansion programme as approved during the year includes:-
(a) A new tuberculosis hospital of 190 beds with a Chest Clinic as an adjunct to it ;
(b) A new hospital of 68 beds for the dependency of Rodrigues;
(c) The addition of 54 beds to the Princess Magaret Orthopaedic Centre ;
(d) The addition of 160 beds to the Civil Hospital Port Louis;
(e) Tne addition of 125 beds to the Victoria Hospital, Quatre Bornes ;
(f) The addition of 120 beds to the Mental hospital;
(g) The addition of 40 beds to each of the following hospitals: Mahebourg, Souillac, Moka, Flacq, Long Mountain and Poudre d'Or.
48. With the exception of the speciality of psychiatry centered on the self-contained Mental Hospital, the services of specialists are centralised at the two major centres of treatment which are the Civil Hospital in Port Louis and the Victoria Hospital at Quatre Bornes. The extensions in hand for the Victoria Hospital include an ophthalmic Unit of 30 beds with out-patient service and an operation department.
49. Ambulance Service.-The number of ambulances in use in the Medical and Health Department at the end of the year was 16. Three new ambulances were on order through the Public Works Department
50. Radiodiagnosis. - The total number of X-Ray examinations reached the figure of 26,424 as follows :-

| (a) Gastro-intestinal |  | ... |  | ... | $\ldots$ | 3,132 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| (b) Chest | ... | $\ldots$ |  | $\ldots$ |  | 9,571 |
| (c) Orthopaedic |  | $\ldots$ |  | ... |  | 12,493 |
| (d) Gall bladder | ... |  |  | $\ldots$ |  | 175 |
| (e) Plain abdomen (e | pre | nc | () |  |  | 618 |
| (f) Urinary tract ... | ... | ... | $\ldots$ | $\ldots$ |  | 22 |
| (g) Others ... |  |  |  |  |  |  |

51. Radiotherapy.--The number of patients accepted for radium treatment totalled 83, distributed as under :-

| Carcinoma of the uterus | $\ldots$ | $\ldots$ | $\ldots$ | $\ldots$ | 67 |
| :--- | :--- | :--- | :--- | :--- | ---: |
| Malignant skin disease | $\ldots$ | $\ldots$ | $\ldots$ | $\ldots$ | $\ldots$ |
| Epithelioma of buccal cavity | $\ldots$ | $\ldots$ | $\ldots$ | ... | 8 |

Radioactive isotopes, received by air, were applied on two occasions.
52.-(a) Ophthalmology. The following work was done by the two ophthalmologists:-

(b) The operations performed were:-

| Cataract | ... | ... | ... | 219 |
| :---: | :---: | :---: | :---: | :---: |
| Iridectomy ... ... ... | ... | ... |  | 13 |
| Glaucoma ... ... | ... | ... |  | 10 |
| Capsulotomy | ... | ... | ... | 9 |
| Evisceration and enucleation | ... | .. | ... | 10 |
| Styes and chalazion |  |  | ... | 55 |
| Lacrymal ducts ... | ... | ... | $\ldots$ | 19 |
| Ectropion ... | $\ldots$ | $\ldots$ | ... | 2 |
| Intra-ocular foreign bodies | $\ldots$ | $\ldots$ | ... | 3 |
| Injury and conjunctival flap | ... | $\ldots$ | $\ldots$ | 13 |
| Dacryocystectomy ... | ... | ... | ... | 17 |
| Strabismus . |  |  |  | 1 |
| Keratotomy ... | ... | ... | ... | 10 |
| Pterygium ... ... | ... | ... | ... | 11 |
| Other operations ... | ... | ... |  | 290 |
|  | Total |  | ... | 682 |

53. The Orthopadic Unit.-The following figures demonstrate the activities of the Unit:-
(a) Attendances of Patients at Doctor's Consultations:-
$\left.\begin{array}{lccccr}\text { Attendances } & \ldots & \ldots & \ldots & \ldots & 2,622 \\ \text { Re-attendances } & \ldots & \ldots & \ldots & \ldots & 6,952\end{array}\right\} 9,574$
(b) Distribution of attendances at :-
$\left.\begin{array}{lcccr}\text { Orthopredic Hospital } & \ldots & \ldots & \ldots & 7,921 \\ \text { Victoria Hospital } \ldots & \ldots & \ldots & \ldots & 1,469 \\ \text { Civil Hospital } & \ldots & \ldots & \ldots & \ldots \\ 139 \\ \text { District Clinics } & \ldots & \ldots & \ldots & \ldots \\ 45\end{array}\right\} 9,574$
(c) Operations at Orthopaedic Hospital :-
$\left.\begin{array}{lllr}\text { Int-patientt } & \ldots & \ldots & 743 \\ \text { Out-patient } & \ldots & \ldots & 2,709\end{array}\right\}, 452$
(d) Attendances at Physiotherapy Department:-
$\left.\begin{array}{lrrr}\text { In-patients } & \ldots & \ldots & 12,399 \\ \text { Out-patients } & \ldots & 25,152 \\ \text { Victoria Hospital } & \ldots & 3,478\end{array}\right\} 41,029$
(e) Patients wearing instruments under supervision:-
$\left.\begin{array}{llll}\text { Polio cases } & \text {... } & 750 \\ \text { Orthopredic cases } & \ldots & 478\end{array}\right\} \mathbf{1 , 2 2 8}$
54. The Orthopaedic Workshop.-This essential complement of the orthopaedic service, provides nearly all the instruments and appliances required on the island. The output of work was, as usual, very high and of an excellent order. Over 4,800 appliances, including 1,627 pair of special boots were manufactured, and over 5,000 articles were repaired.
55. (a)-The Mental Hospital. The lack of accommodation, especially on the male side, remained acute. The new ward block under coustruction will provide additional space for 60 patients while the transfer of quiet and well behaved old chronic dements to infirmaries due to take place in 1957 will help ease the situation.
(b) The insane population of the Colony on the 31st December, 1956, was distributed as under :-

| In Hospital | $\ldots$ | $\ldots$ | $\ldots$ | 611 |
| :--- | :---: | :---: | :---: | ---: |
| On probation leave | $\ldots$ | $\ldots$ | 511 |  |
| On leave for the New Year | $\ldots$ | 72 |  |  |
| In Infirmaries | $\ldots$ | $\ldots$ | $\ldots$ | 101 |
|  | Total | $\ldots$ | 1,295 |  |

The sex distribution of the 1,295 certified insanes was males $62 \cdot 16$ per cent and females $39 \cdot 25$ per cent.
(c) The rate of insanity per 10,000 of the population for Mauritius and the Dependencies was 22,146 for an estimated population of 584,736 . This rate compares favourably with the average rate obtained in Europe. The rate of insanity per 10,000 of population in relation to each community was 35.28 for the General Population and $16^{\prime} 67$ for the Indo-Mauritian population.
(d) The out-patient clinic is attended by an ever-increasing number of patients, most of those coming for advice and treatment being neurotics. Cases of manic depressive insanity are treated in the out-patient department by means of E.C.T. with the result that they are able to obtain adequate treatment without having to be admitted into the Hospital.
(e) Occupational therapy contributes appreciably to the rehabilitation of the mental patient. Classes which are self-supporting are run in both the male and female sections. The proceeds of the sales of the articles made go towards buying fresh materials and contributing to the renewal and repair of tools, while a small reward is set aside for the patient. It is the tradition at the Mental Hospital to remunerate any patient who works regularly. He can spend as he chooses the money earned in that way.
56. - (a) The Dental Service. The dental service is operated chiefly for the benefit of school children, treatment being also afforded when possible to a number of expectant and nursing mothers. There were four dental clinics in operation: one attached to the Civil Hospital, one attached to the Victoria Hospital and two mobile. One of the Mobile Units visited at intervals the Princess Margaret Orthopaedic Centre and the Mental Hospital to give preventive dentistry to long-stay patients.
(b) The following is a summaty of the work performed:-
(i) Victoria Hospital Clinic :-

In the course of 370 sessions, dental treatment was given to 8,131 patients and the attendances were as follows:-

| School children (proper) | $\ldots$ | $\ldots$ | $\ldots$ | 5,120 |
| :--- | :---: | :---: | :---: | ---: |
| School children (casuals) | $\ldots$ | $\ldots$ | $\ldots$ | 1,527 |
| Expectant and nursing mothers | $\ldots$ | $\ldots$ | 1,203 |  |
| Hospital cases (in patients) | $\ldots$ | $\ldots$ | $\ldots$ | 132 |
| Hospital cases (T.B. patients) | $\ldots$ | $\ldots$ | 9 |  |
| Hospital cases (out-patients) ... | $\ldots$ | $\ldots$ | 140 |  |

The nature of dental treatment was:-
Fillings inserted in permanent teeth ... 2,412
Permanent teeth extracted (school children) 290
Permanent teeth extracted (adults) ... ... 540
Deciduous teeth extracted ... ... ... 3,940
Surgical operations on jaws ... ... ... 139
Treatment of parodontal disease ... ... 927
Fracture of jaws ... ... ... ... 6
(ii) Civil Hospital Clinic:-

Total number of school children seen ... 3,225
Expectant mothers ... ... ... ... 83
Hospital cases (in-patients) ... ... ... 145
Hospital cases (out-patients) ... ... ... 211
The nature of treatment was:-

| Extractions | $\ldots$ | $\ldots$ | 2,818 |
| :--- | :--- | :--- | ---: |
| Dressings | $\ldots$ | $\ldots$ | 581 |
| Fillings $\ldots$ | $\ldots$ | $\ldots$ | 527 |
| Scalings $\ldots$ | $\ldots$ | $\ldots$ | 18 |
| Fracture of jaws | $\ldots$ | 7 |  |

(iii) Mobile Unit No. 1.--

Schools. The schools visited by Mobile Dental Clinic No. 1 were : Rivière des Creoles Government School, Quartier Militaire R.C.A. School, Vieux Giand Port R.C.A. School, Goodlands Goyernment School, Plaine Magnien R.C.A. School, Rivière des Anguilles Government School, Verdun C.E.A. School, Surinam C.E.A. School, Mahebourg R.C.A. School, Ste. Cecile (Bambous Virieux) R.C.A. Schoul.

353 pupils from Standard VI received dental treatment. 303 teeth were extracted and 740 were filled. 150 scalings were done. Besides, 1,605 pupils from classes other than Standard VI were treated, the number of teeth extracted being 1,760 and the number filled 30 .

Instruction in oral hygiene was given to Standard VI pupils and to the students of the teachers' Training College.

Mental Hospital :-A fairly large number of patients at the Mental Hospital had to have all their teeth extracted as they were suffering from advanced pyorrhoea or oral sepsis. The total number of teeth extracted were 755. 6 cases of gingivitis were treated by scaling and chromic acid. In those patients who were co-operative enough to allow drilling; 10 fillings were done.
Orthopaedic Centre:-In and out-patients had 430 teeth extracted and 14 filled. 2 dental cysts were enucleated.

## (iv) Mobile Unit No. 2 :-

This unit started operating on the; 21 st May in the Nothern Districts and the following schools were dealt with: Grand Gaube R.C.A.Flacq Government, Petit Raffray R.C.A., Triolet South Government and Arsenal Government.

781 permanent teeth were extracted
689 permanent teeth were filled
300 temporary teeth were extracted
145 temporary teeth were filled
280 scaling and polishing were done
57. Statisiics of morbidity and mortality:-The statistics of morbidity and mortality in respect of hospitais and dispensaries are given in Table II. The statistical figures concerning the mobile dispensaries are shown separately in this Table, figures for attendances being the only ones given, since the introductions of a card system has been found unworkable for the mobile units, and there is consequently a considerable amount of uncertainty as regards new cases and re-attendances.

The main causes of morbidity are enumerated in Table III and Table IV gives figures for hospital statistics by groups of diseases corresponding to the 1948 International Classification.

## II. Out-Patients

58. No modern health organisation can operate without an out-patient and dispensary service. The main functions of this service are :-
(a) Screening of patients applying for admission to hospitals to avoid unsuitable filling of scarce and expensive beds;
(b) Diagnosis and treatment of simple cases and provision of first-aid;
(c) Follow-up of patients discharged from hospitals; and
(d) Health education.
59. All the hospitals have out-patient clinics which are supplemented by 37 static dispensaries scattered all over the island and by a mobile service. In addition there is a mobile dispensary service composed of four units which visit 64 villages and hamlets where it would be uneconomical to have permanent buildings and staff. These units made 974 trips and attended to $81,87.2$ patients. The total attendances at the static dispensaries and at the out-patient departments attached to the hospitals numbered 501,072. The figures for the five immediately preceding years were:-

$$
\begin{array}{lll}
1955 & \ldots & 457,114 \\
1954 & \ldots . & 402,136 \\
1953 & \ldots & 399,899 \\
1952 & \ldots & 379,476 \\
1951 & \ldots & 362,496
\end{array}
$$

60. Early in the year, a new Health Centre at Rose Hill, the first to be built in the Colony, was occupied. It is an up-to-date building combining curative and preventive services, and the waiting hall which is spacious can be used for talks, demonstration and exhibitions. The Service was further strengthened by the opening of a new dispensary at Piton in the North.
61. In the revised Capital Expenditure Programme, provision is made for the construction of another Health Centre at Curepipe and of two new dispensaries, and also for the replacement of seventeen dispensaries which will be small rural health centres in which patients will receive treatment and from which adviee on tural sanitation will be obtained and health education disseminated. An expansion of the mobile dispensary service is contemplated.

## III. The Laboratory Service

62. As in the previous years, the entire staff of the Central Laboratory and its branches was occupied in carrying out routine examinations. A total of 118,118 specimens were examined distributed as follows :-

| Central Laboratory | Clinical Section |  |  | $\ldots$ | 73,700 |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | cal | ction |  | 5,460 |
| Civil Hospital | ... | ... |  |  | 22,280 |
| Victoria Hospital | ... | $\ldots$ | ... |  | 16,678 |

This increased demand on the laboratories had been anticipated as a sequence to the general expansion and modernisation of the Medical Services.
63. Since the introduction of antibiotic sensitivity tests a few years ago, the emergence of resistant strains of staphylococci to penicillin has been frequently reported. Now that the range of antibiotics available for therapy is extending steadily and with their increasing use, often in combination, the emergence of micro-organisms showing multiple resistance must be expected to occur with greater frequency. It was considered desirable therefore to place the sale of all antibiotics under more rigid control and this was one of the objects of the new Pharmacy and Poisons Ordinance which came into force in the last days of the year 1955.
64. During 1956, two cases of $\mathrm{R}^{\mathrm{h}}$ negative pregnant women with $\mathrm{R}^{\mathrm{h}}$ antibody in their sera were cliscovered. They were both treated by Cæsarean section and exchange transfusion for the babies.
65. In April, the Senior Pathologist attended the World Health Organization Seminar on the laboratory aspects of virus and rickettsial diseases held in Madrid.
66. The vacant post of Pathologist was filled and the officer selected was undergoing special training at this Government's expense at the Post-graduate Medical School in London.
67. A summary of the work performed by the Laboratory Service is given as an Appendix.

## IV. Blood Transfusion Service

68. The Blood Transfusion Service is entirely voluntary and continued to be run with the assistance of the St. John Ambulance Association, the Stretcher Bearers' Association and the Mauritius Branch of the Red Cross Society. The policy of obtaining blood required for a transfusion from a relative or friend of the patient continued to be implemented, but when this was not possible and in cases of emergency, donors were supplied by the Blood Transfusion Service. I wish to express our gratitude to the many voluntary donors who have given their constant support to this vital service.

## PART IV <br> Health Services <br> I. Vital Statistics

69. The following is a summary of vital statistics for the year 1956 :-

Area of Mauritius : 720 square miles.
$\begin{array}{cccccccr} \\ \text { Estimated population on the } & 31 \text { st } & \text { December, } & & \text { Males } & \text { Females } & \text { Total } \\ 1956 \quad \ldots & \ldots & \ldots & \ldots & \ldots & \ldots & 293,286 & 285,837 \\ 579,123 \\ \text { Estimated mid-year population ... } & \ldots & \ldots & & - & & 568,886\end{array}$
Density per square mile : 804
Marriages : 3,080
Marriage rate per 1,000 population : $10 \cdot 8$
Live Births ... ... ... ... ... $12,693 \quad 12,217$ 24,910
Live births per 1,000 population : 43.8
Still births : $1,789 \ldots$
Still birth rate per 100 live births : 7.2
Deaths ... ... ... ... ... ... 3,556 3,183 6,739
Crude death rate per 1,000 population : $11 \cdot 8$
Maternal deaths 57
Maternal mortality rate per 1,000 births (live and still) : $2 \cdot 13$
Infant mortality (under 1 year of age) ... ... $920 \quad 724$ 1,644
Infant mortality rate per 1.000 births : 66.0
Deaths from pulmonary tuberculosis ... ... 56 76 132
Death rate from pulmonary tuberculosis per 1,000 population : 0.25
Deaths from infective and parasitic diseases ... $125 \quad 229354$
Death rate from infective and parasitic diseases per 1,000 population : 0.6
Deaths from respiratory diseases ... ... 279494773
Death rate from respiratory diseases per 1,000 population : $1 \cdot 4$
Deaths from diseases of the digestive system... 398467805
Death rate from diseases of the digestive system per 1,000 population : 1.5
Deaths from malaria and malarial cachexia ...
70. An analysis of the percentage contribution to the total number of deaths occurring in 1956 made by the more important groups of diseases is shown below, together with corresponding figures for the five previous years:-

| Groups | ${ }^{\text {T}}$ Percentage of total number of deaths |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1951 | 1952 | 1953 | 1954 | 195.5 | 1956 |
| Infective and parasitic diseases | 11.9 | $9 \cdot 6$ | $11 \cdot 8$ | $7 \cdot 8$ | $4 \cdot 38$ | 5.25 |
| Diseases of the blood and blood-forming organs ... ... ... ... ... | 6.7 | $6 \cdot 9$ | 6.0 | 6.6 | 6.44 | 6.13 |
| Diseases of the nervous system and sense organs ... ... ... ... ... | 60 | 6.1 | $6 \cdot 1$ | $5 \cdot 5$ | 5.53 | 90 |
| Disease of the circulatory system | $5 \cdot 7$ | $5 \cdot 9$ | $6 \cdot 7$ | 6.5 | 8.08 | $7 \cdot 39$ |
| Diseases of the respiratory system | 14.8 | $15 \cdot 5$ | 159 | 14.3 | 10.75 | 11.47 |
| Disease of the digestive system ... | 18.5 | $17 \cdot 5$ | $15 \cdot 3$ | 20.6 | $19 \cdot 07$ | $12 \cdot 83$ |
| Certain diseases of early infancy ... | $11^{\circ} 0$ | 11.4 | $9 \cdot 7$ | $8 \cdot 0$ | $9 \cdot 32$ | $12 \cdot 86$ |

## Population

71. An excess of 18,171 in the number of births as compared with the number of deaths has caused an increase of population which has been such a marked feature in recent years. The estimated population as at the 31 st December was 579,123 and the density of population was $80+$ per square mile for the whole island. The rate of natural increase for the last live years has been 30.09 per thousand as compared with 12.58 per thousand for the 10 year period preceding 1950 . The graph at Figure I shows the population trend for the period 1935-56 whilst the graph at Figure II indicates the trend of crude birth and death rates for the period 1945-56. Table V shows the total births and deaths for the period 1940-56.

## Births

72. The number of live births cluring the year was 24,910 , an increase of 1,940 on the number for 1955 and an increase of 3,525 over the yearly average number of births for the ten years preceding 1956. Still births, which are not included as either births or deaths, numbered 1,789, giving a rate of $7 \cdot 2$ per hundred live births as compared with 1,459 still births in 1955 and a rate of $6 \%$

## Deaths

73. Deaths registered in Mauritius numbered 5,739 corresponding to a rate of 11.8 per 1,000 of the population. The average death rate for the period 1947-56 was $15^{\circ} 9$. Table VI shows the number of cleaths from the principal causes for the ten-year period 1947-56.
74. The number of deaths ascribed to the puerperal state was 57 , giving a rate of 2.13 per thousand births (including still births) as compared with 3.51 in 1950 and 1.47 in 1955.

## Infant and Child Mortality

75. A most satisfactory reduction in deaths from diseases of infancy has been recorded since 1949. In 1956 the infantile mortality rate was 66.0 per 1,000 live births as compared with 67.2 in $1955,81 \cdot 1$ in 1954 and 93.5 in 1953 and an average of 138.1 per 1,000 over the 10 year period 1941-50.
76. The deaths under five years of age were distributed as follows, the corresponding figures for 1954 and 1955 for total deaths being shown for comparison:-

| Age | Male | Female | Total |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |
|  |  |  | 1956 | 1955 | 1954 |
| Under 3 months | 628 | 464 | 1,092 | 926 | 1,012 |
| 3 months and under 6 months | 138 | 110 | 248 | 251 | 316 |
| 6 months and under 1 year | 154 | 150 | 304 | 366 | 450 |
| 1 year and under 2 years | 193 | 209 | 402 | 590 | 766 |
| 2 years and under 3 years | 122 | 135 | 257 | 377 | 633 |
| 3 years and under 4 years | 64 | 79 | 143 | 177 | 355 |
| 4 years and under 5 years | 41 | 42 | 83 | 114 | 204 |
| Total | 1,340 | 1,189 | 2,529 | 2,801 | 3,736 |

The figures were affected in 1954. by an epidemic of measles.
77. The principal causes of death in children under five years of age were in the following categories (International List of Causes of Death, 1948 Revision) :-

Group | Under |
| :---: |
| one year and year |
| ander |
| fire years |

1. Infective and parasitic diseases ... ... ... ... 62 . 58
$\begin{array}{lllllllll}\text { 3. Allergic, endocrine system, metabolic and nutritional } \\ \text { diseases } & \ldots & \ldots & \ldots & \ldots & \ldots & \ldots & \ldots & 19\end{array} \quad 85$
2. Diseases of the blood and blood-forming organs ... 7 37
3. Diseases of the nervous system and sense organs ... 6 \&
4. Diseases of the respiratory system ... ... ... 221 118
5. Diseases of the digestive system ... ... ... 332 266
6. Certain diseases of early infancy ... ... ... 867 -
7. Accidents, poisoning and violence ... ... ... \& 43
8. The mortality rate of children in the 5-14 age-group is a good index of the sanitary conditions of a territory, and the figures are given in the following table. For purposes of comparison, the crude death rate and the infantile mortality rate are included in the table:-

|  | Year |  | Mid-year population | Calculated population age-grout 5-14 | Deatlis <br> age- <br> grolip <br> .5-14 | Death rate age-grout 5-14 <br> per 1,000 | $\begin{gathered} \text { Crude } \\ \text { drath } \\ \text { rate } \\ \text { for } 1.000 \end{gathered}$ | $\begin{aligned} & \text { Infant } \\ & \text { mortality } \\ & \text { vate } \\ & \text { per } 1,000 \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1948 | $\ldots$ | ... | 441,822 | 100,691 | 373 | $3 \cdot 70$ | 23.8 | 186.2 |
| 1949 | ... | ... | 444,521 | 101,306 | 287 | $2 \cdot 83$ | 16.6 | $91^{\circ} 0$ |
| 1950 | .. | $\ldots$ | 454,735 | 105,913 | 213 | 2.01 | 13.9 | $76 \cdot 3$ |
| 1951 | ... | ... | 483,859 | 110,271 | 217 | 1.97 | 14.9 | 83.5 |
| 1952 | ... | $\ldots$ | 501,469 | 114,284 | 233 | $2 \cdot 08$ | 14.8 | $80 \cdot 8$ |
| 1953 | ... | ... | 516.525 | 117,716 | 275 | $2 \cdot 34$ | 16.1 | $93 \cdot 5$ |
| 1954 | ... | $\ldots$ | 530,461 | 120,892 | 392 | 3.24 | 16.0 | 81.1 |
| 1955 |  |  | 549,094 | 138,000 | 252 | 1.81 | $12 \cdot 9$ | $67 \cdot 2$ |
| 1956 | ... | ... | 568,886 | 144,868 | 242 | 1.68 | $11 \cdot 8$ | $66^{\circ} 0$ |

79. The following table shows births, still-births, death rates, marriage rates and natural increase of the population, and gives comparative data for the last ten years:-

|  |  |  |  | Births |  | Still births |  | Death and Marriage rates |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Year |  |  |  |  | $\begin{aligned} & 80 \\ & 80 \\ & \text { I } \\ & \text { 20 } \\ & \text { n } \\ & 0 \end{aligned}$ | $\begin{aligned} & \text { n } \\ & \text { in } \\ & \text { a } \\ & \vdots \\ & 0 \\ & 0 \\ & 0 \end{aligned}$ | $\begin{aligned} & \vec{z} \\ & 0 \\ & 00 \\ & 0.5 \\ & 0 \end{aligned}$ |  | $\begin{aligned} & \text { N } \\ & \text { E } \\ & \text { E } \\ & \text { E } \\ & 0 \\ & 0 \end{aligned}$ |  |  |
| 1947 | ... | ... |  | 18,926 | $43 \cdot 8$ | 1,277 | 6.7 | 11.9 | $20 \cdot 1$ | 17.5 | 10,246 |
| 1948 | $\ldots$ | ... |  | 19,239 | $43 \cdot 1$ | 1,316 | 6.9 | 186.2 | $23 \cdot 8$ | 14.7 | 8,521 |
| 1949 | $\ldots$ | ... |  | 20,472 | 46.0 | 1,364 | 6.7 | $91^{\circ} 0$ | 16.6 | $16 \cdot 3$ | 13,088 |
| 1950 | $\ldots$ | $\ldots$ |  | 23,110 | $49^{\circ} 7$ | 1,410 | 6.1 | $76 \cdot 3$ | 13.9 | $13 \cdot 1$ | 16,657 |
| 1951 | ... | ... |  | 22,968 | $47 \cdot 5$ | 1,401 | 6.1 | 83.5 | 14.9 | 12.7 | 15,760 |
| 1952 | ... |  |  | 24,120 | $48 \cdot 0$ | 1,575 | 6.5 | $80 \cdot 8$ | 14.8 | 16.3 | 16,673 |
| 19.3 | ... |  |  | 23,896 | $46 \cdot 3$ | 1,568 | 6.6 | $93 \cdot 5$ | 16.1 | 13.4 | 15,597 |
| 1934 |  | $\ldots$ |  | 21,926 | 41.3 | 1,358 | 6.2 | 81.1 | 16.0 | $11 \%$ | 13,464 |
| 19.5 |  |  | ... | 22,970 | 41.8 | 1,459 | 6.4 | $67 \cdot 2$ | 12.9 | $10 \cdot 2$ | 15,882 |
| 1956 | $\ldots$ | ... | ... | 24,910 | $43 \cdot 8$ | 1,789 | $7 \cdot 2$ | $66^{\circ} 0$ | 11.8 | $10 \cdot 8$ | 18,171 |

## II. Public Health

## A. Communicabre and Infectious Diseases

## Malaria and Alli-malarial measures

80. Malaria, which used to be the main scourge of Mauritius, having now been mastered, it was necessary to adapt the Insect Borne Diseases Division of the Department to new circumstances, as clearly indicated in the following tables:-

| Year | Cases of malaria treated il hospitals |  | Deallis from malaria in hospitals | Case mortality in hospitals |
| :---: | :---: | :---: | :---: | :---: |
| 1946 |  | 2,522 | 106 | $4 \cdot 20$ |
| 1950 |  | 209 | 10 | 478 |
| 1951 |  | 98 | $+$ | 4.06 |
| 1952 |  | 3 | Nil | Nil |
| 1953 |  | Nil | Nil | Nil |
| 1954 |  | 3 | Nil | Nil |
| 1955 |  | 1 | Nil | Nil |
| 1956 | $\ldots$ | 3 | Nil | Nil |

The deaths ascribed to the disease per 1,000 living from 1947 to 1956 were as shown hereunder: -

|  | Year | Deaths ascribed to malaria | Rate per thousand population | Perconlage of deatlis due to mataria to total deaths |
| :---: | :---: | :---: | :---: | :---: |
| 1947 | $\ldots$ | 1,782 | $4 \cdot 12$ | 20.53 |
| 1948 | $\ldots$ | 1,580 | $3 \cdot 58$ | 15.02 |
| 1949 | ... | 936 | $2 \cdot 11$ | 12.68 |
| 1950 | ... | 388 | 0.83 | 6.01 |
| 1951 |  | 285 | 0.59 | $3 \cdot 95$ |
| 1952 | $\ldots$ | 188 | $0 \cdot 37$ | 2.52 |
| 1953 |  | 61 | $0 \cdot 12$ | $0 \cdot 73$ |
| 1954 | $\ldots$ | 27 | 0.05 | $0 \cdot 32$ |
| 1955 |  | 3 | $0 \cdot 01$ | 0.04 |
| 1956 | ... | Nil | Nil | Nil |

81. The year under review can therefore be described as one of routine and reduction. The personnel employed in the engineering: branch of the Malaria Organization was appreciably reduced on the 1st July, 1956, and all the heavy equipment was transferred to the Public Works Department on the same date.
82. The incidence of malaria is now extremely low, but there is still slight transmission for which Anopheles Gambiae is the obvious suspect, a suspect which to all evidence must be a poor vector in local surroundings. Difficulty has been experienced in breeding A. Gambiae at the altitude of Curepipe where the entomological laboratory is situated ; so a building has been taken over on the coast at Port Louis to be used as an insectaricum. When suitable colonies have been raised, further attempts will be made to carry out experimental infection of that mosquito, and additional research will be effected on its resistance to chlorinated hydrocarbon insecticides.
83. Since A. Gambiae does not rest in houses after feeding, two swing fog machines have been purchased to attack the outside resting places. When a positive blood smear is found, the plan of attack is, in addition to residual spraying of the habitation:-
(a) to fog the likely outdoor resting site;
(b) to treat the actual carrier with chloroquine ; and
(c) to give prophylactic proguanil to the other members of the household.
84. The Malaria Control Organization is at present made up of four branches :-
(a) Maintenance of engineering works.
(b) Malaria Survey.
(c) Residual spraying.
(d) Entomological.
(a) Mainlenance of engineering works-This Branch now only undertakes maintenance of existing major works scattered throughout the island. There is no reason why local authorities should not at some time in the future assume responsibility for the anti-malaria drains in their areas.
(b) Malaria Survey.-This Unit worked at full pressure. As usual, it concentrated first and foremost on an infant survey, since positive smears in this category can be taken as evidence of transmission. In addition it carried out an island-wide survey and took blood films from special cases, i.e., from adults who cumplain of fever to the infant survey teams and from cases suspected by private medical practitioners, hospital and dispensary Medical Officers as being malaria.

During the year, 53,842 blood smears, obtained from the following sources, were examined :-

$50,34+(108$ Positives $\quad 40$ S.T. 61 B.T, 5 Q.T. 2 mixed.


During April and May, an island-wide survey was carried out 8,000 blood smears being taken from the population, as was done in 1954. The results for both surveys were :-

$$
\begin{aligned}
& 1954=38 \text { Positives }(20 \text { S.T, } 6 \text { B.T, } 12 \text { Q.T, }) \\
& 1956=18 \text { Positives }(9 \text { S.T, } 4 \text { B.T, } 4 \text { Q.T, } 1 \text { mixed }) .
\end{aligned}
$$

In the course of special surveys, 15,738 smears were taken and sixteen were returned positives. These surveys were held in the following districts:-

| District |  |  | No. of <br> smears | No. <br> positive |  |
| :--- | :--- | :--- | :--- | ---: | ---: |
| Moka $\ldots$ | $\ldots$ | $\ldots$ | 424 | Nil |  |
| Savane $\ldots$ | $\ldots$ | $\ldots$ | 1,511 | 2 |  |
| Port Louis $\ldots$ | $\ldots$ | $\ldots$ | 1,728 | 1 |  |
| Pamplemousses | $\ldots$ | $\ldots$ | 1,677 | 1 |  |
| Plaines Wilhems | $\ldots$ | $\ldots$ | 862 | Nil |  |
| Flacq | $\ldots$ | $\ldots$ | $\ldots$ | 1.166 | Nil |
| Rivière du Rempart | $\ldots$ | 1,743 | Nil |  |  |
| Grand Port | $\ldots$ | $\ldots$ | 4,002 | 9 |  |
| Black River | $\ldots$ | $\ldots$ | 2,625 | 3 |  |

(c) Residual Spraying.-The island is divided into two districts to facilitate admïnistration. District "A" has its headquarters in Port Louis and is responsible for the following administrative districts : Port Louis, Pamplemousses, Riviere du Rempart, Black River and Lower Plaines Wilhems. The "B" District headquarters are at Forest Side and ontrol Flacq, Savane, Grand P ort and Upper Plaines Wilhems.

During the year, 219,134 rooms were treated with one application of residual spray and 3,719 in the Mon Desert S.E. area received two applications.

DDT 50 per cent wettable powder was the insecticide most commonly used and was applied at the rate of approximately 170 mgm of the parapara isomer per square foot. In the Black River District and Mon Desert area the insecticide used was Dieldrin at the rate of 45 mgm per square foot. For better class houses DDT Technical in Kerosene or DDT Emulsion is used.

Hospitals, Dispensaries, Orphanages outside the spraying area were also treated during the year.

The population in the residual spraying area is approximately 200,000 and the cost of spraying per capita is about R. 1.50. The cost per room treated is R. 1.36. On breaking down the costing it is found that the cost per room for insecticide is 39 cents, Labour 43 cents. Transport 13 cents, Supervision of labour etc., 38 cents. Overalls, Depreciation of sprayers etc., 4 cents.

Residual spraying, as at present carried out, will have to continue until answers are received on the resistance to the chlorinated hydrocarbon insecticides and on the resting habits of $A$. gambiac during the gonotrophic cycle.
(a) Entomological. During the year, frequent observations were made to compare the frequency of breeding sites for $A$. gambire which was found in practically all classes of habitats as classified by Russell, with the exception of tree holes and special plant associations.

The findings were as under :-


Near the coast, typical A. Gambiae. breeds in brackish water containing up to 16.85 grammes NaCl per litre.

An interesting feature of the year's work is constituted by the preliminary observations of Mr . Mamet, the newly appointed entomologist, on the nocturnal activity of $A$. gambiac. They show that this species though normally starting feeding as early as between 19 and 20 hours, reaches its maximum activity between 23 hours and 3 hours, with peaks between 23 and 24 hours and between 2 and 3 hours.

Pending further observations, the table appearing hereunder shows the results so far obtained :


The above results suggest that $A$. gambiac has lost its crepuscular habit previously reported by Halcrow (1954) and that the nocturnal activity of the Mauritian gambiae seems to match fairly well with that of the African gambiae which reaches the peak of its cycle late into the night i.e., between 1 and 4 hours, declining rapidly one or two hours before dawn.
85. Extensive surveys again failed to reveal any Anopheles funestus (once the main vector of malaria in Mauritius) and dedes acgypli, and it is thus confirmed that they have been completely eradicated. Special search for Aedes vinsoni Mattingly also gave negative results and this species may well have disappeared.
86. The Malaria Advisory Board, of which the Director of Medical Services is the Chaiman, met on 33 occasions.

## Filariasis

87. 18 cases were treated in hospitals and 31 in dispensaries.

## Enteric Fever

88. The cases of this clisease notified in the year 1956 numbered 149 equivalent to an incidence rate of 0.26 per 1,000 of the population as compared with 66 cases notified in 1955, equivalent to an incidence rate of 0.12 per 1,000 of the population. These 149 cases resulted in 8 deaths, giving a case mortality of $5 \cdot 37$ as compared with 11 and 16.6 per cent for the previous year.
89. The incidence of this disease per 1,000 of the population and the case mortality for the past five years were :-

| Year |  | No. <br> of cases <br> notified | Rate <br> per 1,000 <br> of the population | Case <br> mortality |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 1951 | $\ldots$ | $\ldots$ | 326 | 0.67 | 15.95 |
| 1952 | $\ldots$ | $\ldots$ | 252 | 0.502 | 7.54 |
| 1953 | $\ldots$ | $\ldots$ | 108 | 0.21 | 10.18 |
| 1954 | $\ldots$ | $\ldots$ | 88 | 0.16 | 11.36 |
| 1955 | $\ldots$ | $\ldots$ | 66 | 0.12 | 16.66 |

90. Very early in the year, a small epidemic of typhoid fever, which was quickly brought under control, broke out in part of the district of Grand Port in the south of the island. It was responsible for the notification of fifty cases. The measures taken to deal with it included the reinforcement of medical and health personnel in the clistrict, a special health education and sanitation campaign, the spraying with residual insecticides of 12,751 rooms, mass inoculation with T.A.B. vaccine which reached over 24,000 individuals and the immediate isolation in hospital of every suspected case.

## Diphtheria

91. The cases of this disease notified in the year numbered 89 equivalent to an incidence rate of $0 \cdot 15$ per 1,000 of the population. The 39 cases resulted in 11 deaths, giving a case mortality of 12.36 per cent.

The following figures indicate the number of cases of diphtheria notified, the incidence rate and the case mortality for the previous five year :-

| Year |  | No. of cases <br> notified | Incidence <br> rate per 1,000 <br> population | Case <br> mortality <br> per 100 |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1951 | $\ldots$ | 88 | 0.18 | 19.31 |  |  |
| 1952 | $\ldots$ | 73 | 0.145 | 13.70 |  |  |
| 1953 | $\ldots$ | 62 | 0.12 | 6.45 |  |  |
| 1954 | $\ldots$ | 69 | 0.13 | 7.24 |  |  |
| 1955 | $\ldots$ | 67 | 0.12 | 19.40 |  |  |
|  |  | Erysipelas |  |  |  |  |

92. 4 cases were notified during the year.

Small-pox
93. No case has occurred during the past 44 years. A total of 15,367 vaccinations were performed of which 15,129 were successful. 62 per cent of the children born were vaccinated by Medical Officers of the Heath Department.

## Tuberculosis

94. The work and activities of the Tuberculosis Division were carried ont on lines similar to those of the previons years.

The World Health Organization sent a team in the middle of the year to do a Tuberculin Surey of different sections of the population. This work was completed by November and another team will be coming in 1957 to supplement the survey done.
95.-(a) B. C. G. Vaccination:-During the year, schools in all the districts of the Island were visited, and the work of testing, retesting and vaccination of school children was carried out as in the year before.
(b) The students joining the Teacher's Training College were tuberculin tested and vaccinated where necessary.
(c) In the hospitals, all new nursing students were tested and B.C.G. vaccination done.
(d) The testing of contacts of tuberculous cases was continued a the Civil and the Orthopædic Hospitals as in the previous years. New born babies of tuberculous parents were vaccinated with B.C.G. without testing if they were below one month old.
(e) The Tuburculin tests were with the Heaf Multiple Puncture instrument using a P.P.D. solution specially prepared for this technique. The Tuberculin test by the Heaf Method was carried out on everyone over the age of 1 year. We are still using the Tuberculin Jelly test on children of below 1 year. The World Health Organisation Team used a Danish P.P.D. solution of 5 units for intradermal testing in their survey. A small comparative study showed that the Heaf's Multiple Puncture method was as reliable as the intradermal test with 5 units P.P.D.
( $f$ ) Our supply of vaccine was obtained from the Pasteur Institute, Paris, as Lyophilised Freeze Dried Vaccine. This is reconstituted just before use and the dose injected in 1956 is now 0.3 mg . in $\frac{1}{10}$ c.c. By using this stronger dose, we have not found any untoward complications. The size and type of local ulcers were not different from those when 0.1 mg was injected.
(g) The nursing staff of the B.C.G. Campaign visited all schools regularly after vaccination to apply dry dressings on the ulcers. 1,001 visits were thus made and 33,551 dressings applied.
(h) During 1956 the number of persons who had tuberculin tests was 22,432 and 13,498 vaccinations with B.C.G. were done.
96. The figures below show the B. C. G. work done in 1956:-

| Romlinc | $\overbrace{$ Children to  <br>  School-leazers }$^{\text {Adults }}$ | Contacts | New-born <br> to 1st year | Tolab |  |  |  |
| :--- | :--- | :--- | :--- | :--- | :---: | :---: | ---: |
| Tests | $\ldots$ | $\ldots$ | 17,727 | 692 | 1,185 | 137 | 19,741 |
| Re-tests $\ldots$ | $\ldots$ | 6,514 | 24 | 31 | - | 6,569 |  |
| Vaccinations | $\ldots$ | 11,300 | 74 | 449 | 127 | 11,950 |  |

97. The following table gives an analysis of the tuberculin sensitivity amongst the persons tested in 1956:-

| Analysis of | 17,201 | Tests | According to Age-groups |  |  |  |
| :---: | :---: | ---: | ---: | ---: | ---: | :---: |
| Age |  | Total | Positive | Negative | $\%$ | of positive |
| $0-1$ | $\ldots$ | 137 | 20 | 117 | 14.6 |  |
| $2-4$ | $\ldots$ | 294 | 59 | 235 | 20.06 |  |
| $5-9$ | $\ldots$ | 10,903 | 2,184 | 8,719 | 20.03 |  |
| $10-14$ | $\ldots$ | 4,757 | 1,825 | 2,932 | $38 \cdot 3$ |  |
| $15-19$ | $\ldots$ | 360 | 222 | 138 | $61 \cdot 6$ |  |
| $20-24$ | $\ldots$ | 167 | 125 | 42 | 74.9 |  |
| $25-29$ | $\ldots$ | 153 | 131 | 22 | $85 \cdot 6$ |  |
| $30-34$ | $\ldots$ | 124 | 111 | 13 | $89 \cdot 5$ |  |
| $35-39$ | $\ldots$ | 109 | 95 | 14 | $87 \cdot 2$ |  |
| $40+$ | $\ldots$ | 197 | 170 | 27 | $86 \cdot 3$ |  |
| Total | $\ldots$ | 17,201 | 4,942 | 12,259 | - |  |

98. The total number on the Tuberculosis Register at the end of 1956 was 3,625 . The total number of cases notified during the year was 424.
99. Just over 225 beds were fully uccupied by tuberculous patients in the various hospitals. Out-patient clinics continued to be held regularly at Civil and Victoria Hospitals.
100. Durnng the past ten years the cleath rates on account of tuberculosis have been as follows :-

| Year |  | Deaths per 100,000 <br> population |  |  |
| :---: | :---: | :---: | :---: | :---: |
| 1947 | $\ldots$ | $\ldots$ | $\ldots$ | 39 |
| 1948 | $\ldots$ | $\ldots$ | $\ldots$ | 61 |
| 1949 | $\ldots$ | $\ldots$ | $\ldots$ | 68 |
| 1950 | $\ldots$ | $\ldots$ | $\ldots$ | 53 |
| 1951 | $\ldots$ | $\ldots$ | $\ldots$ | 49 |
| 1952 | $\ldots$ | $\ldots$ | $\ldots$ | 40 |
| 1953 | $\ldots$ | $\ldots$ | $\ldots$ | 28 |
| 1954 | $\ldots$ | $\ldots$ | $\ldots$ | 25 |
| 1955 | $\ldots$ | $\ldots$ | $\ldots$ | 24 |
| 1956 | $\ldots$ | $\ldots$ | $\ldots$ | 25 |

## Leprosy

101. No new case was notified during the year under review and it is now clear that the problem of leprosy has been solved.

## Poliomyelitis

102. 31 paralytic cases were notified.

The cases recorded as paralytic from 1953 to 1956 are as under :-

| Year | $\begin{array}{cc} \text { Total } & \text { Sex } \\ \text { No. of dislribution } \end{array}$ |  |  |  | Age incidence |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  | Under | 1-2 | 2-3 | 3-4 | 4-5 | 5-10 | 10-20 | Above |
| 1953 |  |  | 1 | 1 | 6 | 3 | 7 | 2 | 4 | 2 | 3 | 1 |
| 1954 |  | 11 | 1 | 175 | - | 3 | 1 | 1 | - | 3 | 2 | 1 |
| 1955 |  | 9 | 2 | 1 | 2 | 1 | 1 | - | - | 2 | 1 | 2 |
| 1956 |  | 31 | $2 \cdot 5$ | 1 | 1 | 12 |  | 4 | 3 | 3 | 1 |  |

## Venereal diseases

103. 124 admissions for syphilis and 1 death was reported from the hospitals and 12 cases of gonococcal infection were treated. From the out-patient clinics and dispensaries 412 cases of syphilis and 65 cases of genoccocal infection were notified.

## Ankylostomiasis

104. The number of cases treated in hospitals and in the dispensaries amounted to 411 and 7,481 respectively.

## Schistosomiasis

105. 34 cases were treated in hospitals and 346 at the dispensaries.
106. Figure III shows the proportion in percentages of diseases treated in hospital to total cases treated, according to the sections of the 1948 International Classification of Diseases, while Figure IV illustrates the proportion in percentages of certain infective and parasitic diseases treated.

## B. Nutrition and Nutritional Diseases

107. The following nutritional diseases were recorded during the year :

| Diseases |  |  | In hospitals <br> (cases) | At static <br> Dispensarnes <br> (cases) | At mobile <br> (dispensarits <br> (attendances) |  |
| :--- | :--- | :--- | :--- | :---: | :---: | :---: |
| Beriberi | $\ldots$ | $\ldots$ | $\ldots$ | 1 | 3 | 1 |
| Pellagra | $\ldots$ | $\ldots$ | $\ldots$ | 57 | 81 | 33 |
| Seurey | $\ldots$ | $\ldots$ | $\ldots$ | 1 | 2 | 4 |
| Other deficiency states | $\ldots$ | 293 | 3,934 | 1,539 |  |  |

108. The table published hereunder supplies evidence that anaemia is one of our major problems.

109. As anticipated in last year's report, the Nutrition Survey Project which was under consideration between the World Health Organization and this Government, materialised during the year. A medical haematologist arrived in August and commenced his investigations immediately. A non-medical nutritionist was due to report early in 1957 to assist in the project.

## C. Food in Relation to Health and Disease

110. The relation between food and health is of the greatest importance here as elsewhere. In common with all tiopical cometries, the premises where articles of food are stored, prepared and sold in Mauritius, do not always comply with the best standards and a constant menace is constituted by the itinerant hawkers whose numbers are out of proportion to the population. The food inspectorate must therefore be very active and exercise constant vigilance over production and sale of fond. Excluding markets and slaughter houses which are under the incessant supervision of representatives of the public health services, food premises were inspected on 9,865 occasions during the period under review.
111. Sophistication of milk is so current that this essential commodity continued to be subjected to special control. It is gratifying to point out that appreciable improvements have been conspicuous in the town areas following the establishment of a milk Control Unit in 1953. During the year under review, this Unit submitted 276 samples to the Government Chemist for analysis, out of which 157 or 57 per cent did not comply with the standards laid down by law. 403 further cases of sophistication were brought before Court by the other Health Inspectors of the Department.
112. There are six public and one private abattoirs. The public slaughter-houses administered by the Municipality of Port Louis, the Town Councils of Curepipe and of Beau Bassin-Rose Hill as well as the Government slaughter-house at Flacq are each controlled by a qualified Veterinary Surgeon. In other places supervision rests with the sanitary staff. There are 12 markets in the Colony.
113. The inspection of imported foodstuffs is carried out in a systematic way by the Port Health Inspector. As a result the items listed below were found unfit for human consumption or for delivery and were seized accordingly :-

> 2 Packages Flour Samples
> 1 Package Provisions
> 12 Cases Cigarettes (mouldy)
> 6 Cases Confectionery
> 12 Bags Flour Sweepings
> 135 Crates Onions
> 6 Cases Cigarettes (mouldy)
> 7 Bags Bomlas
> 122 Tins Boiled Abalone

1,000 Packets Cigarettes (mouldy)
3 Packages Cheese
6 Cartons Cigarettes (mouldy)
143 Bags Flour
84 Kilos Rice
200 lbs Pigs' heads
2,080 Tins Portuguese Sardines
1 Ball Gouda Cheese
1 Tin Picnic Hams.

## D. General Measures of Sanitation

114. The Health staff consists of :-

5 Senior Health Inspectors.
1 Port Health Inspector.
62 Health Inspectors.
For sanitation purposes, Port Louis is divided into six sections, Plaines Wilhems District into two divisions of two sections each and the remaining districts into seven divisions. The inspections made by the health staff during the year are listed in Table VII.
115. District of Port Lonis.- (a) The Health Office for the district of Port Louis is administered by a Senior Medical Officer of Health who is also Port Health Officer. He has under him one Senior Health Inspector, seven Health Inspectors and six disinfectors. A Port Health Officer is in charge of port sanitary duties and is also responsible for anti-rodent measures for which he has a staff of thirteen.
(b) The number of rats caught by trapping was :--

| Rats | $\ldots$ | $\ldots$ | 5,017 |
| :--- | :---: | :---: | ---: |
| Mice | $\ldots$ | $\ldots$ | 1,679 |
| Musks | $\ldots$ | $\ldots$ | 139 |
|  | TOTAL | $\ldots$ | 6,835 |
|  |  |  |  |

Most of the operations are now carried out by poison treatment, which means that infestations are completely cleared without many traces of rodents alive or dead being seen. The figures quoted above therefore do not convey an accurate idea of the actual destruction taking place.
(c) The following figures refer fo Port Louis District:-

| Area : 16 SQuare miles |  |  |  |
| :---: | :---: | :---: | :---: |
| Estimated population at the |  |  |  |
| 31 st December, 1 |  |  | 97,988 |
| Density per square |  |  | 6,124 |
| Live births |  |  | 4,516 |
| Birth rate per 1,000 |  | $46 \cdot 9$ |  |
| Still Births |  |  | 323 |
| Deaths |  |  | 1,344 |
| Death rate per 1,000 |  | $14^{\circ} 0$ |  |

116. Plaines Wilhems District.-All the work is supervised by a Medical Officer of Health who has Health Officers in Curepipe, Vacoas and Rose Hill

The following figures refer to Plaines Wilhems District :-

| Area : 78 Sqare Miles |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Estimated population at the 31st December ... 172,549 |  |  |  |  |  |  |
| Density per square mil |  | ... | ... | ... |  | 2,212 |
| Live births | ... | ... | ... | ... |  | 7.060 |
| Birth rate per 1,000 |  | ... | ... |  | 41.6 |  |
| Still births |  |  |  |  |  | 514 |
| Deaths ... |  |  |  |  |  | 1,787 |
| Death rate per 1,000 |  |  |  |  | 10.5 |  |

## E. Port Health and Quarantine

117. Port Louis is the only seaport in Mauritius for ocean-going vessels. Health measures in the port area are directed by the Medical Officer of Health for Port Louis, assisted by a Port Health Inspector. There is a well-equipped Disinfecting Station to carry out disinfection and fumigation. Under the International Sanitary Regulations, 1951, Port Louis is an approved and designated port for the issue of deratting and deratting exemption certificates. Four deratting and eight deratting exemption certificates were issued during the year. The number of vessels admitted to pratique during the year is given in Table VIII. No passenger coming from abroad was detained on account of any of the quarantinable diseases.
118. The airport is in the south of the Island at Plaisance. The District Medical Officer, assisted by a Sanitary Inspector, is responsible for all sanitary measures at the airport. 166 civil aircraft arrived in the Colony with 3,007 passengers of whom 321 coming from infected areas were put under surveillance. All planes were dis-insected on reaching and before leaving the airport.

## F. Water Supplies

119. Work continued on the development of the Colony's water supplies:-
(a) Mare-aux-Vacoas Supply.-This supply is operative in the districts of Plaines Wilhems, Moka, Black River, part of Port Louis, the higher parts of Grand Port and Savane and the Vallée des Pretres and Montagne Longue areas. Consumption reached about 8,300,000 gallons per day at the end of 1956. The area of the filters at La Marie was increased by 10,600 square feet, bringing the total filtering area to 150,600 square feet. Three more filters were under construction. A new chloronome was added to the two in service.

In the Plaines Wilhems area, the supply of Quatre Bornes, Rose Hill and Beau Bassin was further improved by laying new mains from Vacoas Reservoir to Palma and to Candos and Rose Hill reservoirs, and from Rose Hill reservoir towards Beau Bassin. In the Moka area the supply of St. Pierre, Bois Cheri and adjoining localities was improved by laying a new main from Alma Reservoir to St. Pierre. In the Black River area the supply was extended to Coteau Raffin.
(b) Piton du Milieu and Nicoliere.-Filters for 4,000,000 gallons per day at Piton du Milieu and 1,000,000 gallons per day at Nicolière are still under construction. In Flacq district a new service reservoir of 200,000 gallons capacity at Bonne Mère was brought into service for Centre of Flacq and surrounding localities, a new $8^{\prime \prime}$ main being laid from the reservoir to Centre of Flacq. A new main was also laid from L'Unité to Belle Rose Reservoir and from Belle Rose reservoir to Bel Air.

In Pamplemousses and Rivière du Rempart districts the supply was extended to Calebasses and Powder Mills.

In Savanne the supply was extended to Benares, Rivière des Anguilles and St. Aubin and in Grand Port district to Riche en Eau and Mahebourg.
(c) Riviere des Galets Supply (Savanne). The dam on Rivière des Galets was completed. Laying of mains towards Mont Blanc, Chemin Grenier and Surinam was continued.

## G. Schools Medical Service

## Work of the School Medical Officers

120.-(a) All the Primary Schools were visited, the following number of pupils being examined :-

| Entrants | $\ldots$ | $\ldots$ | 5,556 |
| :--- | :---: | :---: | :---: |
| "Special" | $\ldots$ | $\ldots$ | 1,168 |
| Re-examinations | $\ldots$ | 2,250 |  |

17 per cent of the entrants were classified as being of "poor general condition". 7.2 per cent required medical treatment.
Below is a summary of the different findings district by district in respect of entrants only:-

(b) Thitteen visits were paid and 1,738 pupils were examined during the period June to October at Cannoniers' Point School Holiday Camp. Forty-five pupils required medical treatment.
(c) Sixty-five temporary teachers and thirty-six school servants were examined for employment by the Education Department, as well as 238 candidates selected for admission to the Teachers's Training College.
(d) 63 Entrants at the Royal College and 58 Entrants at the Royal College School were also examined.
(e) Lectures on Health Education were given weekly throughout the year to the students of the Teachers' Training College.
121.-(a) Work of the School Nursing Staff-The School Nurses and the Nursing Assistant visited 135 schools for cleanliness and health survevs.
Of 48,462 pupils examined during the cleanliness survey :-
$8 \cdot 15$ per cent had dirty finger nails
15. 0 per cent had nits
$6 \cdot 12$ per cent had nits and lice
9.44 per cent did not have a handkerchief or clean piece of cloth
$7 \cdot 35$ per cent did not have a toothbrush.
The corresponding percentage figures for 1955 were $9.43,16.2$, $8.47,15.66$ and 7.07 respectively.

During the year 585 pints of concentrated "Gammexane" solution and 18 pints of concentrated "D. D. T." solution (with instructions to dilute before use) were distributed to all schools. The nursing staff co-operated in the campaign to sell nailbrushes, nit combs and toothbrushes from ${ }_{*}^{*}$ Education Office Headquarters. 142 nit combs, 192 nailbrushes and 695 tonthbrushes were sold during the year.
(b) 50,395 pupils were examined during the health survey 2,735 of them were referred to the School Medical Officer. 141 schools were visited for "follow up" of pupils under treatment. 6,657 pupils were examined and 1,251 were treated.
(c) With the help of the Nutrition and Health Assistant 130 schools were visited for distance vision surveys of pupils in the third and sixth standards. 21,430 pupils were examined and 374 were referred to the School Medical Officer.
(d) Where necessary, treatment was given to pupils in schools for minor ailments. The stock of First Aid materials in schools was replenished regularly and 19 schools were provided with new First Aid cabinets.
122.-(a) Nutrition.-At the end of the year 98.7 percent of the pupils in attendance were taking their milk ration. 3,289 pupils were receiving a double ration of milk and 8 yeast tablets daily at school. In addition, 579 pupils were also receiving a supplement of Vitamins A and D in the form of Halibut Oil capsules or Cod Liver Oil.
(b) The Milk Officer and the Nutrition and Health Assistant supervised the running of the milk Scheme. They have to report any defects in the state of cleanliness of school servants who prepare the milk and of the utensils.
(c) 53 samples of milk being distributed to the pupils were sent during the year to the Government Chemist for analysis for estimation of their nutritive value.
(d) Talks on Nutrition were given to senior pupils in some schools by the Nutrition and Health Assistant and the whole staff co-operated with the Medical Officer of the World Health Organization Nutrition Project in his survey on anaemia among schoolchildren.
123. The Tuberculosis Specialist and his staff have continued the B.C.G. Campaign and during the year the World Health Organization team engaged on a tuberculin sensitivity survey visited the schools to perform a number of tuberculin tests.

19 more contacts of Pulmonary Tuberculosis have been detected among the pupils, bringing the total number, to date, to 99 .

The practice of submitting all new teaching staff and school servants to an X-Ray examination of chest in addition to a routine medical examination was continued: thus three candidates selected for the Training College showed active Pulmonary Tuberculosis on X-Ray examination and were rejected.
124. Enteric Fever.-During the first quarter of the year one of the School Medical Officers inoculated 5,371 pupils in 15 schools of Grand Port District with T.A.B. vaccine as part of the measures adopted to deal with an Enteric Fever outbreak in the district.
125. Health Education.-Continued emphasis was laid on this aspect of the work. Health education of both pupil and parent was possible through the medical inspections, and in the course of the cleanliness inspections the nurses gave advice to both pupil and teacher. Regular teeth cleaning drills were continued in schools. Teachers in training had lectures and demonstrations at the Training College from the Government Dentists.

The Education Department continued its Associate membership scheme of "the Central Council for Health Education" in U.K. and material received during the year was used in Health Education Work. The monthly "Better Health" was sent regularly to all schools.

## PART V

## Maternal and Child Health

126. The scheme for the expansion of the maternal and child health services in rural areas which was commented upon in last year's report continued to be implemented. In January, the new centre at Surinam was opened and staffed, the Bambous centre followed in February and in July, it was the furn of l'Escalier centre. The villagers were quick to take advantage of this development and by the end of the year, 1,337 women had attended the ante-natal clinics held at the new centres, and 262 confinements had been conducted by the midwives attached thereto.
127. There was a considerable increase in the work supervised by the Superintendent of Midwives. Attendances at the various ante-natal clinics which are under her direct control amounted to 15,131 as compared with 4,572 for 1955 ; and the midwives posted to those clinics conducted 4,083 confinements ( 2,794 in 1955) . The Superintendent and Assistant Superintendent of Midwives personally visited 1,746 newly confined women in their homes to give them advice and attention and to guide them on the hygiene and feeding of their babies. This service which was at first tolerated by the people seems to be well received now and much good has come of the visits made.
128. The Principal Matron holds three ante-natal clinics and a summary of the work performed by her is given below:-
(a) Eastern Dispensary, Port Louis:-

| New cases | $\ldots$ | $\ldots$ | $\ldots$ | 2,013 |
| :--- | :---: | :---: | :---: | :---: |
| Re-attendances | $\ldots$ | $\ldots$ | $\ldots$ | 7,878 |
|  |  | TOTAL | $\ldots$ | 9,391 |

(b) Bel Air Dispensary:-

| New cases | $\ldots$ | $\ldots$ | $\ldots$ | 437 |
| :--- | :---: | :---: | :---: | ---: |
| Re-attendances | $\ldots$ | $\ldots$ | $\ldots$ | 1,896 |
|  |  | Total | $\ldots$ | 2,333 |

(c) Medine-Camp de Masque:-

| New cases | $\ldots$ | $\ldots$ | $\ldots$ | 157 |
| :--- | :--- | :---: | :--- | ---: |
| Re-attendances | $\ldots$ | $\ldots$ | $\ldots$ | 791 |
|  |  | Total |  | $\cdots$ |
|  |  |  |  | 948 |

129. The Mobile Ante-Natal Unit had to bear a fair share of the work, the number of new cases seen being 2,683 and the re-attendances amounting to 7,503 .
130. The district midwifery service based on the Civil Hospital, Port Louis, produced record figures which are detailed hereunder :-
(a) Ante-Natal Clinic:-

| New cases | $\ldots$ | $\ldots$ | $\ldots$ | 2,481 |
| :--- | :--- | :--- | :--- | ---: |
| Total attendances | $\ldots$ | $\ldots$ | 12,803 |  |

(b) District Midwifery Service:-

| Confinements | $\ldots$ | $\ldots$ | $\ldots$ |
| :--- | :--- | ---: | ---: |
| Ante-natal visits | $\ldots$ | 1,144 |  |
| Post-natal visit | $\ldots$. | $\ldots$ | 1,178 |
|  |  | 16,120 |  |

(c) Ward Work:-

| Admissions | $\ldots$ | $\ldots$ | $\ldots$ | 2,010 |
| :--- | :--- | :--- | :--- | :--- |
| Confinements | $\ldots$ | $\ldots$ | $\ldots$ | 1,703 |

131. The activities of the Maternity and Child Welfare Society are listed below:-

| nts |  | 31 |
| :---: | :---: | :---: |
| Attendances of women at consultations |  |  |
| Attendances of infants at consultations |  | 8,160 |
| Attendances of lnfants at Centres for weighing and supervision : |  |  |
| (a) First attendance |  | 2,884 |
| (b) Re-attendance |  | 16,677 |
| Visits to infants |  | 1,885 |
| crage number of infants receivil |  | 1,10-4 |
| Average number of litres of milk distri |  | 52 |

132. It is a routine to take blood for serological tests from women attending the ante-natal clinics for the first time. Any case requiring. treatment is referred to the hospital on which is based the centre attented by the woman. Another routine at the clinics is the issue of iron and yeast tablets. Cod liver oil and vitamin preparations are given under supervision.

## PART VI

## Prisons

133. The total number of prisoners admitted into prisons during the year was 1,703 and the daily average population was 597.98 (including the Borstal Institution).

The total number of sick cases registered was 4,583 of which 251 were admitted into hospital. The danly average of sick treated as outdoor patients was 11.8 ; the daily average of patients in hospital 12.5, while the sick rate calculated on the daily average in hospital was 4.83 per cent. Only one death caused by pneumonia was registered among the inmates.
134. The general health of the prisoners was good on the whole; influenza in winter and enteritis in summer remaining the prevailing diseases. On admission, 47 prisoners were suffering from scabies, 18 from Venereal diseases and 4 from deficiency states associated with defective nutrition.

## PART VII

## The Dependency of Rodrigues


136. The population which, as in Mauritius, is increasing at an alaming rate, is on the whole in good health and is taking advantage of the health services provided in the Dependency. The attendances at the dispensaries and the number of persons seeking admissions into hospital are constantly on the increase, and the response to an islandwide whooping-couch vaccination campaign was a striking demonstration of confidence.
137. There was the usual seasonal outbreak of influenza complicated in many cases of bronchitis and pneumonia. Intestinal diseases constitute a problem, specially in the summer season when flies breed more freely. Anæmia and nutrational diseases are encountered, but not to the extent one would expect in a population living on a poor and monotonous diel of maize, sweet potatoes and cassava, with some fish added from time to time.
138. Two cases of leprosy, ex-patients of the Leper Asylum in Mauritius, were referred for admission because of a serious hare-up of the disease. Six new cases, close relations of former leprous patients, are under treatment in the dependency.
139. In the absence of a reliable survey, the position regarding the incidence of tuberculosis remains obscure, but there is no reason to believe that the situation is alarming. The great majority of cases at present under observation or treatment have reported from the areas served by Mount Lubin Hospital and Dispensary.
140. Ante-natal clinics were held regularly at Port Mathurin and Mount Lubin Hospitals and continued to attract a fair number of expectant mothers. The number of ante-natal examinations carried out was 1,279 . The post-natal clinics are not so well attended but, as explained in last year's report, the Rodrigues community is not yet at a sufficiently advanced level to appreciate fully the importance of health in all circumstances of life.
141. A school Medical Service was started during the year. All the entrants of the three schools of the island were examined and pupils of the other classes who were found to be below par were given regular medical attention.
142. It was possible to post a second Medical Officer to Rodrigues with effect from the 23 rd April, thus easing the heavy task which had in the past to be shouldered by one man only. This posting coincided with the supply of modern anaesthetic equipment which has permitted of a number of major and intermediate operations being attempted with confidence and safety. It was customary to transfer all serious cases to the hospitals of Mauritius. The new developments have recluced the number of such transfers.
143. There are three hospitals at Rodrigues. The main one at Port Mathurin with 40 beds has now reached the final stage of decrepitude and is due to be replaced by the middle of 1958 by a modern institution of 68 beds which will be erected on a platean at Creve Coeur. The drawings are ready and it is planned to start bulding operations early in 1957. The two other institutions are small village hospitals sited at Mont Lubin and La Ferme with 30 beds between them.

The following figures summarise the work performed in the three hospitals:-

|  |  |  | 1956 | 1955 |
| :--- | :--- | :--- | :---: | ---: |
| Out-patients attendances | $\ldots$ | $\ldots$ | 47,739 | 44,690 |
| Admissions to hospitals | $\ldots$ | $\ldots$ | 2,291 | 2,263 |
| Surgical operations performed | $\ldots$ | 906 | 903 |  |

The number of deaths occurring in hospitals was 45 (39 in 1955).
144. One of the Government dentists spent three months in Rodrigues at the beginning of the year and treated 628 school children and 520 other persons. He performed 1,075 extractions and did 190 fillings, 29 scalings and 3 root treatments. The dentist reports that, taken as a whole, the Rodrigues children have better teeth than the Mauritians. In the $10-14$ year group the caries incidence is 1.3 per child.
145. The Health Inspector posted to the dependency concentrated his activities on the area around Port Mathurin and visited La Ferme and Mount Lubin at regular intervals. His main duties are those of a health educator.

## Acknoivledgement

146. It is my pleasant duty once again to state that if the Department succeeded in meeting the need for greatly varied public health activity and in maintaining a satisfactory standard of health despite shortage of staff, inadequate accommodation and other difficult circumstances, the results achieved are in no small measure due to the loyal and active cooperation of the members of the staff.

The co-operation of the public either individually or through the medium of local authorities, corporate bodies and voluntary organizations has been essential in the realisation of the Department's aims.

1 take this opportunity to express my heartfelt thanks to all.

[^0]
## R. Layoipierre,

## APPENDIX I

## Annual Report of the Central Health Laboratory for the year 1956

Laboratory Receipts in the form of fees<br>The total earnings for the year amounted to Rs. $24,706.33$

The work of the laboratory is clivided up into the following sections:-
I. Medical Biology V. Serology
II. Histology VI. Biochemistry
III. Bacteriology VII. Veterinary.
IV. Haematology

## 1. MEDICAL BIOLOGY

(a) Facces (Microscopical)

Total number examined ... ... 4,012
Helminths:-
Hymenolepis nana ... ... 2
Taenia saginata ... ... ... 8
Bertiella stucleri ... ... ... 1
Enterobius vermicularis ... 6
Trichuris ova ... ... ... 654
Ascaris ova ... ... ... 904
Hookworm ova ... ... ... 1,870
Strongyloides larvat ... ... 42
Protozoa :-
Entamoeba histolytica ... ... 65
Entamoeba coli ... ... 151
Vegetative and precystic amocbat ... 48
Iodamoeba Butschlii ... ... 3
Endolimax nana ... ... ... 205
Giardia (Lamblia) intestinalis ... 146
Chilomastix mesnili ... ... 28
Trichomonas intestinalis ... ... 50
Blastocystis hominis ... 470
No helminths, no protozoa ... ... 606
(b) Urine (Microscopical)

Total number examined ... ... 3,025
Casts ... ... ... 491
Trichomonas vaginalis ... ... 33
Schistosoma haemotobium ... ... 108
Red blood cells ... ... .. 359
Pus ... ... ... ... 267
Crystals ... ... 537
(c) Urine for pregnancy (Male toad lests)

Total number examined ... ... 2,086
Number of positives ... ... ... 839
(d) Cerebro-Spillal Fluid
Leucocyte count ..... 241
(e) Semen
Total number examined ..... 6
(f) Pus, Discharscs, Scrapinss
Total number examined ..... 3
(g) Blood
Inoculation to guinea pis ..... 5
(h) Vomit (Microscopic E.taminalion)
Total number examined ..... 1
II.-HISTOLOGY
Biopsy and Morbid histological examinations weremade on 385 specimens of material.
Head and Neck :-
Brain :-
Normal ..... 1
Menningioma ..... 1
Face :-
Epithelioma ..... 1
Nose :-
Epithelioma .....  3
Fibroma ..... 1
Granulation tissue ..... 1
Ethmoid :-
Epithelioma ..... 1
Eye:-
Sarcoma ..... 1
? Oligodendroglioma ..... 1
Detached retina ..... 1
Parotid Gland :- Fibrosis ..... 1
Mixed tumour ..... 2
Check:-
Haemangioma ..... 1
Ear :-
Fibroma ..... 2
Mouth :-
Ulcer
Ulcer ..... 1 ..... 1
Papilloma of soft palate ..... 1
Tonsue :-
Papilloma ..... 1
Hypertrophy ..... 1
Hacmangioma ..... 1
Gum :-
Epithelioma ..... 2
Gingivitis ..... 1
Tonsils :-
Epithelioma ..... 1
Larynx :-
Papilloma ..... 1
Squamous carcinoma ..... 1
Granulation tissue ..... 1
Jaw :-
Osteogenic sarcoma ..... 1
Squamous carcinoma ..... 1
Granuloma ..... 2
Squamous carcinoma ..... 4
Epulis ..... 2
Thyroid :-
Adenoma ..... 5
Thorax:-
Chest Wall :-
Encephaloid carcinoma ..... 1
Breast :-
Normal ..... 2
Mastitis ..... 6
Abscess ..... 3
Fibroadenoma ..... 5
Duct carcinoma ..... 1
Scirrhous carcinoma ..... 6
Encephaloid carcinoma ..... 4
Adenocarcinoma ..... 1
Abdomen:-
Abdominal wall :-
Secondary adenocarcinoma ..... 1
Fibroma ..... 2
Abscess ..... 1
Mesenteric cyst ..... 1
Secondary carcinoma of peritoneum ..... 1
Stomach :-
Inflammatory thickening of pylorus ..... 1
Necrosis from poisoning ..... 1
Simple ulcer ..... 5
Adenocarcinoma ..... 3
Large Intestine :-
Adenocarcinoma of colon ..... 1
Adenocarcinoma of rectum ..... 2
Benign polypus of rectum ..... 1
Ulcer of colon ..... 1
Fistula in ano ..... 1
Chronic inflammation of anus ..... 1
Wart of anus ..... 2
Appendix :-
S. Hæematobial appendicitis ..... 2
Liver :-
Hepatitis ..... 1
Cirrhosis ..... 1
Malaria (from an Askari soldier) ..... 1
Spleen:-
Banti's disease ..... 1
Malaria (Askari soldier) ..... 1
Suprarenal Gland :- Normal ..... 1
Gall Bladder :-
Chronic cholecystitis ..... 1
Pelvis :-
Urinary bladder :-
Fragment of mucous membrane ..... 1
Ureter:-
Transitional carcinoma ..... 1
Prostate :-
Simple hypertrophy ..... 2
Adenocarcinoma ..... 1
Testicle :-
Chronic orchitis ..... 1
Seminoma ..... 1
Haemangioma ..... 1
Penis :-
Epithelioma ..... 1
Ovary :-
Follicular cyst ..... 2
Fibroma ..... 1
Papillary cystadenoma ..... 1
Granulosa cell carcinoma ..... 1
Spinclle cell sarcoma ..... 1
Ovai ian pregnancy ..... 1
Vulva:-
Fibroma ..... 1
Vaginal wall :-
Inflammatory ulceration ..... 1
Squamous carcinoma ..... 1
Uterus :-
Normal endometriumi ..... 14
Hyperplasia of endometrium ..... 34
Endometritis ..... 2
Adenocarcinoma ..... 4
Fibromyama ..... 7
Products of conception ..... 4
Placenta Accreta ..... 1
Cervis
Chronic cervicitis ..... 2
S. haematobial cervicitis ..... 4
Polypus ..... 6
Cervical erosion ..... 1
Squamous carcinoma ..... 11
Adenocarcinoma ..... 3
Fallopian tubes
Chronic salpingitis ..... 1
Limbs : -
Fibrosarcoma of clbow ..... 1
Chronic dactylitis ..... 1
Tuberculous dactylitis ..... 1
Abscess of thigh ..... 1
Chronic inflammatory sinus of thigh ..... 1
Round cell sarcoma of tibia ..... 1
Chronic inflammation of foot ..... 1
Capillary haemangioma of sole ..... 1
Gangrene of foot ..... 2
Epithelioma of les ..... 2
Simple ulcer of less ..... 1
Fibroma toe ..... 1
Wart of toe ..... 1
Skin:-
Normal ..... 3
Abscess ..... 2
Fibroma ..... 2
Sebaccous cyst ..... 3
Inflammation ..... 3
Wart ..... 6
Keloid ..... 1
Papilloma ..... 1
Lipoma ..... 4
Naevus ..... 1
Haemangioma ..... 3
Squamous carcinoma ..... 1
Melanoma ..... 3
Chronic ulcer ..... 1
Blood Vessels : -
Normal vein ..... 1
Arteriosclerosis ..... 4
Thromboangiitis obliterans ..... 3
Bones :-
Normal ..... 1.
Spindle cell sarcoma ..... 1
Chronic osteomyelitis ..... 7
Osteoclastoma ..... 2
Chondrosarcoma ..... 2
Mixed cell sarcoma ..... 1
Abscess ..... 1
Joints :-
Tuberculous arthritis ..... 6
Chronic arthritis ..... 21
Chronic bursitis ..... 5
Muscles :-
Myositis ..... 3
Myosarcoma ..... 1
Volkmann's contracture ..... 1
Lymph Glands:-
Chronic adenitis ..... 16
Tuberculous adenitis ..... 8
Normal lymph glancl ..... 3
Lymphosarcoma ..... 7
Horlgkin's clisease ..... 3
Miscellancous :-
Sympathetic ganglion ..... 2
Granulation tissue ..... 1
Sarcoma from unknown Site ..... 1
Haemangioma from unknown Site ..... 2
Bloorl clot ..... 4
Intamation of nail bed ..... 1
Fibrous tissue ..... 3
Cellular debris ..... 1
Animals:-
Fowls:-
Haemorrhagic spleen ..... 1
Lymphocytic inflammation of liver ..... 1
Pus from intestinal wall ..... 1
III. BACTERIOLOGY
A. Direct Microscopical Examinations
2,807 microscopical examinations were made :-
(a) Spulum.
Total number examined ..... 1,926
Mycobacter tuberculosis ..... $19+$
(b) Corebro-Spinal Fluid.
Jotal number examined ..... 73
Pneumococcus ..... 1
(c) Throal and nasal stiabbinss.
Total number examined ..... 78
Corynebact diphtheriae ..... 1.3
(d) Pus, discharges, scrapings etc.
Total number examined ..... 160
Staphylococcus albus ..... 2
Mycobacter tuberculosis ..... 4
Neisseria gonorrhoae ..... 16
B. Cultures
Total number examined ..... 3,953
(a) Blood.
Total number examined ..... 81
Staphylococcus aureus ..... 1
Bact. typhosum ..... 1
Morgan's bacilli ..... 2
Streptococcus haemolyticus ..... 1
Staphylococcus albus ..... 1
(b) Facces
Total number cultured ..... 172
Bact. typhosum ..... 2
(c) Urine
Total number cultured ..... 733
Bact. Coli ..... 205
Bact. alkaligenes ..... 8
Bact. proteus ..... 14
Bact. paracolon ..... 4
Morgan's bacilli ..... 24
Pseudomonas pyocyanea ..... 20
Staphylococcus aureus ..... 9
Staphylococcus albus ..... 1
Streptococcus haemolyticus ..... 3
Streptococcus viridans ..... 3
Streptococcus faecalis ..... 1
Mycobacter tuberculosis ..... $+$
Inoculafion to guinea pig ..... 11
(d) Sputum
Total number cultured ..... 51
Bact. proteus ..... 1
Bact. Freidlanderi ..... 1
Diphtheroid ..... 1
Streptococcus viridans ..... 9
Mycobacter tuberculosis ..... 11
Neisseria catharralis ..... 1
(e) Cerebro-Spinal Fluid
Total number cultured ..... 73
Bact. alkaligenes ..... 1
Streptococcus pnemmoniae ..... 3
(f) Throat and Nasal Srabbinss
Total number cultured ..... 1,857
Corynebact diphtheriae ..... 230
Diphtheroids ..... 59
Staphylococcus aureus ..... 85
Staphylococcus albus ..... 7
Streptococcus haemolyticus ..... 116
Streptococcus viridans ..... 2
Virulence test for corymebact cliptheriae ..... 8
(g) Pus, Discharges \& Scrapings etc.
Total number cultured ..... 993
Bact. coli typical ..... 8
Bact. coli atypical ..... 1
Bact. proteus ..... 11
Bact. paracolon ..... 2
Bact. alkaligens ..... $+$
Bact. Morax Axenfeldt ..... 2
Morgan's bacillus ..... 4
Pseudomonas pyocyanca ..... 2
Dorlerlein's bacillus ..... 11
Diphteroids ..... 11
Staphylococcus aureus ..... 86
Staphylococcus albus ..... 475
Streptococcus haemolyticus ..... 26
Corynebact diphtheriae ..... 1
(h) Vaccine
Stock T.A.B. prophylactic vaccine ..... 42 lits.
T.A.B. for protein shock ..... 500 mls .
Stock polyvalent streptococcal vaccine ..... 250 mls .
Stock staphylococcal antivirus ..... 4 lits.
Various autogenous vaccines ..... 9 cases
(i) Miscellaneous
Sensitivity to antibiotics ..... 44 cases
Milk analysis ..... 1
Water analysis ..... 434
IV. HAEMATOLOGY
Total number examined ..... 6,910
Haemoglobin estimations ..... 1,326
Red cells counts ..... 871
White cells counts ..... 381
Differential counts ..... 372
Blood sedimentation rates ..... 506
A.B.O. groupings ..... 2,201
Cross matchings ..... 650
Rhesus factors ..... 199
Rhesus anti-body ..... 11
Packed cell volume ..... 38
Mean corpuscular haemoglobin ..... 35
Mean corpuscular haemoglobin concentration ..... 37
Platelets counts ..... 4
Reticulocyte counts ..... 4
Bleeding time ..... 89
Coagulation time ..... 90
Malarial parasites ..... 2
Film for microflariae ..... 83
Bone marrow ..... 5
Coombes test ..... 3
Fragility test ..... 1
Formol Gel test ..... 1
Princess Margaret Orthopaedic Centre
Total number examined ..... 1,731
Haemoglobin estimations ..... 552
Red blood cells counts ..... 129
White blood cells counts ..... 131
Differential counts ..... 104
Blood sedimentation rates ..... 500
Blood grouping ..... 213
Cross matchings ..... 102

## V. SEROLOGY

## I. Bloon

(a) Agslutination Test
$\begin{array}{ccc}\text { Total number number of sera submitted for } \\ \text { agglutination test } & \ldots & \ldots \\ 912\end{array}$
$\begin{array}{ccccc}\text { Significant agglutinins for Bact. Typhosum } \\ \text { "H " } & \ldots & \ldots & \ldots & 281\end{array}$

| Significant agglutinins for Bact. Typhosum |  |  |  |
| :---: | :---: | :---: | :---: |
| "O " | $\ldots$ | $\ldots$ |  |

Significant agglutinins for Bact. Paratypho-
sum " ${ }^{\text {." }} \ldots$
$\ldots$

Significant agglutinins for Bact. Proteus OX 22
$\begin{array}{ccccc}\text { Significant } \\ \text { OX } 19 & \ldots & \text { agglutinins } & \text { for } & \text { Bact. Proteus } \\ 7 & \ldots & 7\end{array}$
Significant agglutinins for Bact. Proteus OXK 3
Brucella Abortus ... ... ... 1
(b) Kalhn tests

Negative ... ... ... 15,959
Doubtfull reactions ... ... 518

+ ... ... 532
$+\quad$.. ... $\quad$.. 620
$+t$... $+\quad$.. 341
$+++\quad \ldots \quad \ldots \quad 83$
Unsuitable for test ... ... 215
Totale ... 18,268


## (c) Kline lests

Negative ... ... 16,516
Doubtful reactions ... ... 652
$+\quad$.. $\quad$.. $\quad$.. 598
$++\quad$... $+\quad$.. 532
++ ... ... 384
$t+t+\ldots \quad \ldots \quad 166$
Unsuitable for test ... ... 200
Total $\quad \ldots \quad 19,048$
(d) Wasserman reactions

Negative ... ... ... 947
Doubtful reactions ... ... ... 84
$+\quad$.. $\quad$.. $\quad$.. 114
$\begin{array}{cllll}++ & \ldots & \ldots & \cdots & 103 \\ + & & & \end{array}$
$\begin{array}{rllll}+++ & \cdots & \cdots & \cdots & 92\end{array}$
Unsuitable for test ... ... ... 341
Total $\quad$... 1,809
(e) Gonorrhoea complement firation test
Negative ..... 17
Doubtful reactions ..... 2
$+$ ..... 3
$++$ ..... 2
$+++$ ..... 3
$++++$
6
Unsuitable for test
Total ..... 33
(f) Blood
Paul Bunnell's test ... ..... 9
II. Cerebro-Spinal Fluid
(a) Wassermann reactions
Negative ..... 123
Doubtful ..... 8
$+$ ..... 4
$++$ ..... 2
$+++$ ..... 2
$++++$ ..... 2
Unsuitable for test ..... 12
Total ..... 153
(b) Kalin test
Total number examined ..... 7
VI. BIOCHEMISTRY
(a) Urine
Total number examined ..... 2,379
Albumen--qualitative ..... 247
Albumen-quantitative ..... 8
Glucose-qualitative ..... 95
Glucose-quantitative ..... 75
Acetone ..... 7
Bile pigments ..... 20
Bile salts ..... 1
Specific gravity ..... 35
Urea ..... 6
Bence Jones Protein ..... 2
Urobilinogen ..... 5
Cl as NaCl ..... 1
Lactose ..... 1
Galactose ..... 1
(b) Blood
Urea ..... 1,693
Glucose ..... 2,242
Bromides ..... 171
Protein ... ..... 99
Albumen ..... $6+$
Globulin ..... 64
Cholesterol ..... 19
Calcium ..... 10
Alkaline phosphatase ..... 27
Acid phosphatase ..... 19
Phosphorous ..... 3
Chlorides ..... 26
Uric Acid ..... 5
Amylase ..... 1
Thymol turbidity test ..... 20
Van Den Bergh reaction ..... 68
Bilirubin ..... 50
Icterus index ..... 6
Urea clearance test ..... $+$
Prothombin index ..... 1
Total ..... 4,592
(c) Cerebro-Spinal Fluid
Protein ..... 239
Chlorides ..... 196
Glucose ..... 182
(d) Facces
Occult blood ..... 103
Bile pigments ..... 3
Fats ..... 1
(c) Misccllancous
Total number examined ..... 24
Fractional test meal ..... 3
Ascilic Fluid :-
Specific gravity1
Protein ... ..... 1
Plewral Fluid :--
Protein ... ..... 3
E.rudates :-
Protein ..... 1
Calculi :-
Urinary ..... 7
Renal ..... 1
Urines :-
Diastase ..... 2
Urea ..... $t$
Bile pigments ..... 1.

## VII. VETERINARY

## A. (Microscopical) <br> (a) Facces

Total number examined ... ... 1t
Horses ... ... ... ... 9
Doss ... ... ... ... 5
(b) Blood

Blood smears from Bovines ... ... 2

## B. Post Morten Examinations

Total number examined ... ... 123
Chickens ... ... ... 109
$\begin{array}{lllll}\text { Turkey } \ldots & \ldots & \ldots & \ldots & 1\end{array}$
Small birds ... ... ... 3

| Calf | ... | ... |  |  |
| :--- | :--- | :--- | :--- | :--- |

$\begin{array}{lllll}\text { Sheep } . . . & \ldots & \ldots & \ldots & 1\end{array}$
Goat ... ... ... ... 6
$\begin{array}{lllll}\text { Fish } . . . & \ldots & \ldots & 1\end{array}$
C. Cultures
(i) Material from chickens ... ... 17
(ii) Sheath washings from bulls ... ... 15
$\begin{array}{ccccc}\begin{array}{c}\text { Number } \\ \text { foetus }\end{array} & \ldots & \text { positives } & \text { for Trichomonas } & \\ \text { and } & \ldots & \ldots & 2\end{array}$
(iii) $\begin{array}{llll}\text { Muco purulent vaginal discharge from cows } & 1 \\ \text { Number of positives } & \text { for } & \text { Trichomonas. } \\ \text { foetus } & \ldots & & \text {... }\end{array} \quad$...
(iv) Material from goats ... ... 5

Number of positives for Mycobacter
tuberculosis
$\ldots$$\ldots$
D. Agglutination Test
(i) Hemagglutination inhibition test for Newcastle disease of poultry60
(ii) Number of bovine sera tested ..... 139
Significant agglutinins for Brucella Abortus ..... 14
Significant agglutinins for Salmonella bovis-morbificans
(iii) Number of caprine sera tested ..... 124
Significant agglutinins for Brucella Abortus ..... 1
Significant agglutinins for Salmonella bovis morbificant ..... 13
(iv) Number of equine sera tested ..... 1
Significant agglutinins for Salmonella bovis morbificans ..... -
E. Biochemistry Blood urea estimation (goats) ..... 23
F. Vaccine
Newcastle clisease vaccine (oral) ..... 79,000
closcs

## APPENDIX II

## Annual Report of the Victoria Hospital Branch Laboratory

I. MEDICAL BIOLOGY(a) Blood (Miscroscopicat)
Total number examined ..... 51
Blood films for malaria parasites ..... 41
Blood films for microfilariae ..... 10
(b) Faeces (microscopical)
Total examinations ..... 3,332
Helminths :--
$\begin{array}{lllll}\text { Ascaris ova } & \ldots & \ldots & \ldots & 1,721 \\ \text { Hookworm ova } & \ldots & \ldots & \ldots & 1,401\end{array}$
Trichuris ova .....  2,898
Hetereodora Marioni ..... 4
Oxyuris vermicularis ..... 1
Strongyloides larvae ..... 1
Brotozoa :-
Entamoeba Histolytica ..... 1
Entamoeóa Coli cysts ..... 20
Enclolimax Nana cysts ..... 6
Vegetative and precystic amoeba ..... 28
Trichomonas ..... 3
Giardia (Lamblia) cysts ..... 65
Blastocysts ..... 667
No Helminths, no protozoa ..... 434
(c) Urine (Microscopical)
Total examinations ..... 1,418
Pus Cells ..... 814
Casts ..... 400
Trichomonas vaginalis ..... 84
Schistosoma haematobium ..... 60
II. BACTERIOLOGY(a) Sputum
Total number examined ..... 1,215
Mycobacter tuberculosis ..... 211
(b) Throat and Nasal Swabbings
Total number examined ..... 78
Cornyebact diptheriae ..... 10
(c) Pus, Discharges, Scratings
Total number examined ..... 92
Neisseria gonorrhoea ..... 18
(d) Urine
Utine for micro-organisms ..... 2
III. HAEMATOLOGY
Total examinations ..... 5,583
Blood counts ..... 2,608
Differential blood counts ..... 580
Platelets counts ..... 18
Bleeding time ..... 29
Goagulation time ..... 31
A. B. O. groupings and X-matchings ..... 1,417
Blood sedimentation rate ..... 900
IV. BIOCHEMISTRY(a) Urine
Total number examined ..... 4,757
Reactions ..... 1,484
Albumen qualitative ..... 1,572
Albumen quantitative ..... 2
Glucose qualitative ..... 1,522
Glucose quantitative ..... 16
Tests for acetone ..... 100
Tests for bile ..... 61
(b) Stools
Stools for Occult Blood ... ... 3
(c) Crastric juice
Fractional test meal98

## APPENDIX III

## Annual Report of the Civil Hospital Branch Laboratory

## I. MEDICAL BIOLOGY

(a) Blood (Microscopical)

Total number examined ... ... 80
Malaria film (negative) ... ... 47
Plasmodium Vivax ... ... 1
Plasn:odium Falciparum ... ... 1
Microfilarire (negative) ... . 28
W. Bancrofti ... ... ... 3
(b) Faeces (Microscopical)

Total number examined ... ... 2,740
Helminths:-
Ascaris ova .. ... ... 872
Trichuris ova ... ... ... 735
Hookworm ova ... ... ... 369
Enterobius vermicularis ... ... 4
Heterodera Marioni ... ...
Strongyloides larvæ ... ... 26
Hymenolepis nana ... ... 2
Protozoa :-
Entam@ba Histolytica cysts ... 110
Entamœba Coli cysts ... ... 172
Vegetative and Precystic amœba ... 42
Entamœba Butschlii ... ... 1
Endolimax nana ... ... ... 61
Giardia (Lamblia) cysts ... ... 146
Chilomastix ... ... ... 16
Trichomonas ... ... ... 46
Cercomonas ... ... ... 1
Blastocystis ... ... ... 468
No Helminths, no protozoa ... ... 762
(c) Urine (Microscopical)

Total number examined ... ... 4,296
Casts ... ... ... ... 916
Pus ... ... ... ... 1,208
Red blood cells .... ... ... 1,051
Crystals ... ... ... 593
Schistosoma haematobium ... ... 392
Microfilariae ... ... ... 4
Trichomonas vaginalis ... ... 132
II. BACTERIOLOGY
(a) Sputuni

Total number examined .... 2,107
Mycobacter tuberculosis ... ... 393
(b) Urine, Pus, etc.

Total number examined ... ... 7
(c) Throat and Nasal Swabs, etc.Total number examined176
Throat Swabs ..... 131
Number of positive for Corynebacteria ..... 11
Nasal Swabs ..... 44
Number of positive for Corynebacteria ..... 8
Mouth Swab for Moniliasis ..... 1
(d) Pus, Discharges, Swabbings
Total number examined ..... 372
Neisseria Gonorrhoea ..... 64
Trichomonas vaginalis ..... 1
(e) Miscellaneous
C.S.F. Cells Counts ..... 9
III. HAEMATOLOGYTotal number examined7,685
Haemoglobin estimations ..... 1,861
Red Blood Cells counts ..... 1,361
White Blood Cells Counts ..... 955
Differential Counts ..... 987
A. B. O. Groupings ..... 645
Cross-Matchings ..... 1,104
Blood Sedimentation Rate ..... 718
Bleeding Time ..... 13
Coagulation Time ..... 16
Platelets ..... 15
Reticulocytes Count ..... 1
Fragility Test ..... 1
Mean Corpuscular Volume ..... 8
IV. BIOCHEMISTRY(a) Faeces
Total number examined ..... 8
Occult Blood positive ..... 3
(a) Fractional Test MealTotal number examined54
(c) Urine
Total number examined ..... 4,666
Albumen Qualitative ..... 2,110
Albumen Quantitative ..... 15
Glucose Qualitative .. ..... 2,095
Glucose Quantitative ..... 84
Bile determination ..... 117
Acetone ..... 172
Specific gravity ..... 73

## APPENDIX IV

## Annual Report of the Government Chemist for 1956

## GENERAL CHEMICAL ANALYSES

During the year, 5,460 samples were received involving 11,914 tests. Table I gives full details on the various items.

Milk-The check on the quality of milk distributed to pupils invarious schools showed that on several occasions the milk distributed contained an excess of milk solids or sugar, and sometimes a deficiency of both. On each occasion the case was reported to the School Medical Officer.

The Special Milk Unit, mention of which is made in my previous Reports, has continued to render efficient service, 276 samples being received from this unit only. It can definitely be said that, according to results recorded in the Laboratory for 1956, the quality of milk on sale is steadily improving, thanks to the close check kept by the Sanitary Inspectors on milk-sellers and cow-keepers.

Waters.-Samples of drinking water supplies from La Marie, Monneron, Pailles and Piton du Milieu were taken regularly for analysis.

Samples of water were taken from the tanks of the ship "Drakensberg Castle " and analysed regarding fitness for human consumption. Ammonia was the noxious substance, and advice was given to render the water wholesome.

Samples of water from a pool in which noxious substances were suspected to have been added which would have been injurious to fishes "gouramiers" were received from the Police. On analysis, no such substances were detected.

Cases of Poisoning (Human)
Of the 145 cases of poisoning or suspected poisoning, results were as follows :-


Cases of Poisoning (Animals)
Two fatal cases of doping of race horses were recorded. In the first case, strychnine was indentified, and in the second a barbiturate (gardenal) was present.

Gizzards of fowls and various organs of dogs were received for detection of poisonous substances-on several cases the tests were positive.

## Cannabis and Opium

The number of analyses performed in connection with cannabis cases is on the increase, whilst that for opium has decreased, exhibits in respect of 4 cases only being received for the latter.

Textiles
308 samples of various specimens were received from the Customs for identification.

The majority of these specimens were found to contain over 15 percent by weight of artificial silk.

Drunkenness
800 samples of urine and blood were received from various hospitals of the Colony.

On analysis, approximately 50 per cent were found to contain a high percentage of alcohol.

Edible Oils
All consignments of edible oil received in the Colony were sampled and examined; they were all found fit for human consumption, the greater percentage being cotton seed and ground nut oils.

Others are : soya, coconut, olive, mustard, niger, maize and sesame.
Cod liver and castor oils received by pharmacists were also analysed.

## Rum and Denaturated Spirits.

Several cases of fraud were reported by the Customs Authorities where it was stated that denaturated alcohol had been sold to the public as rum, after distillation or other methods of purification.

Investigations were started in this laboratory, which showed that the allegations were founded.

Research work was started, but had to be discontinued owing to pressure of other work and shortage of staff.

It is hoped that, as soon as the position will improve, research work in this direction will be resumed.

Miscellaneous
This item comprises analyses of : DDT powders, vinegars, hair lotions, semastic, mazont etc. etc.

Table II gives in detail the work performed at the Customs Laboratory during the year under review.

TABLE I

| Description | Samples received | $\begin{gathered} \text { Tests } \\ \text { carricd } \\ \text { out } \end{gathered}$ |
| :---: | :---: | :---: |
| Milk (for joint analysis) | 26 | 130 |
| Milk | 1,010 | 5,210 |
| Waters | 60 | 240 |
| Poisoning cases $\left\{\begin{array}{l}\text { human }\end{array}\right.$ | 145 | 185 |
| Poisoning animal | 46 | 100 |
| Frandia | 1,442 | 2,884 |
| Opium | 14 | 42 |
| Textıles ... | 308 | 400 |
| Drunkenness | 800 | 800 |
| Edible Oils | 327 | 415 |
| Power Alcohol | 53 | 53 |
| Rum from warehouse | 214 | 214 |
| Rum \{ Police cases . | 325 | 400 |
| Wash ... | 10 | 20 |
| Wine (local) | 47 | 84 |
| Pharmaceutical drugs | 59 | 59 |
| Chinese drugs ... | 19 | 53 |
| Gas tests ... | 500 | 500 |
| Miscellaneous | 55 | 125 |
| Total ... | 5,460 | 11,914 |

## TABLE II

Samples examined at the Customs' Laboratory during the year 1956 :-

| Liquor | $\ldots$ | $\ldots$ | $\ldots$ | 10 | Hosiery | $\ldots$ | $\ldots$ | $\ldots$ | 474 |
| :--- | :---: | :---: | :---: | ---: | :--- | :--- | :--- | :--- | ---: |
| Brandy | $\ldots$ | $\ldots$ | $\ldots$ | 42 | Haberdashery | $\ldots$ | $\ldots$ | 630 |  |
| Cognac | $\ldots$ | $\ldots$ | $\ldots$ | 14 | Hats | $\ldots$ | $\ldots$ | $\ldots$ | 188 |
| Rum | $\ldots$ | $\ldots$ | $\ldots$ | 6 | Bed Sheets | $\ldots$ | $\ldots$ | 243 |  |
| Gin $\ldots$ | $\ldots$ | $\ldots$ | $\ldots$ | 14 | Corsets | $\ldots$ | $\ldots$ | $\ldots$ | 5 |
| Vodka | $\ldots$ | $\ldots$ | $\ldots$ | 4 | Rugs and Blankets | $\ldots$ | 93 |  |  |
| Vermouth $\ldots$ | $\ldots$ | $\ldots$ | 14 | Carpets | $\ldots$ | $\ldots$ | $\ldots$ | 9 |  |
| Wine imported | $\ldots$ | $\ldots$ | 198 | Towels | $\ldots$ | $\ldots$ | $\ldots$ | 246 |  |
| Whisky | $\ldots$ | $\ldots$ | $\ldots$ | 37 | Umbrellas $\ldots$ | $\ldots$ | $\ldots$ | 13 |  |
| Flavouring | Essences | $\ldots$ | 56 | Knitting Yarns | $\ldots$ | $\ldots$ | 20 |  |  |
| Vinegar | $\ldots$ | $\ldots$ | $\ldots$ | 11 | Local Vinegar | $\ldots$ | $\ldots$ | 101 |  |
| Piece Goods | $\ldots$ | $\ldots$ | 1,571 | Country Liquor | $\ldots$ | $\ldots$ | 19,421 |  |  |
| Wearing Apparel | $\ldots$ | 2,800 | Miscellaneous | $\ldots$ | $\ldots$ | 405 |  |  |  |

TABLE I

Statistics of Hospitals

| Patients <br> ill hospital <br> on I.1.56 | Total admisstons | Deaths | Patients remainins on 31.12 .56 | $\begin{gathered} \text { No. of } \\ \text { beds } \end{gathered}$ | No. of patients on any date during period under review |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  | Maximum | Minımum |
| 254 | 9,492 | 540 | 263 | 410 | 405 | 242 |
| 21 | 1,982 | 49 | 27 | 66 | 66 | 21 |
| 25 | 1,527 | 22 | 21 | 70 | 70 | 21 |
| 23 | 2,253 | 49 | 29 | 116 | 109 | 21 |
| 62 | 2,782 | 05 | 62 | 105 | 105 | 48 |
| 43 | 1,958 | 63 | 27 | 97 | 93 | 27 |
| 38 | 1,627 | 52 | 48 | 80 | 80 | 39 |
| 197 | 7,786 | 353 | 149 | 263 | 274 | 192 |
| 21 | 548 | 27 | 18 | 78* | 71 | 21 |
| 6 | 167 | - | 5 | 16 | 14 | 1 |
| 12 | 251 | - | 12 | 30 | 18 | 6 |
| 123 | 590 | 11 | 139 | 157 | 157 | 132 |
| 40 | 8 | 2 | 42 | 62 | 46 | 33 |

[^1]table II
Statistics of Morbidity and Mortality Calendar Year 1956









Table II-conlinucd

> Slatic dispensames and
ont-patient depts
of hospitals




-



A \＄1．Arteriosclerotic and degenerative heart


Hypertension with heart discase ．．． Hypertension without
Diseases of arteries $\begin{array}{lll}\text { Diseases of arteries } \ldots \text { ．．．} & \text { ．} \\ \text { Other diseases of circulatory system } & \ldots\end{array}$ Acute upper respiratory infections

Lobar pneumonia ．
Primary atypical，other and unspecified－
Acute broncbitis

ぶぶかダふ

[^2] （b）Gastro－enteritis and colitis，ages （c）Chronic enteritis and ulcerative




$\begin{gathered}\text { Static dispensaries and } \\ \text { out-patient depts } \\ \text { of hospotals }\end{gathered}$
$-\underbrace{}_{\text {New cases }}$



の志
$\stackrel{0}{\infty} \stackrel{0}{0} \stackrel{0}{0}$ 1 NT 6
 $\begin{array}{lllllllll}108,848 & 148,932 & 257,780 & 9,075 & 632 & 14,036 & 509 & 23,111 & 1,141 \\ 81,117\end{array}$



$8,493 \quad 12,926 \quad 21,419 \quad 559$
 $\pm \underset{\sim}{n} \underbrace{\infty}_{-\infty}$

「oncin

N
10
$n$


All other ill－defined causes
morbidity

| out-patient depts of hospitals |  |  | Hospitals-(In patients) |  |  |  |  |  | Mobile Dispensaries Attendances |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| New cases |  | Total cases | $\overbrace{\begin{array}{l} \text { Newe } \\ \text { cases } \end{array}}^{\text {Male patients }}$ |  | Fenale patuents |  | Total cases | Total deaths |  |
| Male | Female |  |  |  | New cases | deaths |  |  |  |
| 170 | 69 | 239 | 367 | 28 | 119 | 16 | 486 | 44 | - |
| 688 | 222 | 910 | 159 | 3 | 18 | - | 177 | 3 | - |
| 37 | 10 | 47 | 45 | 3 | 31 | 2 | 76 | 5 | - |
| 5,367 | 2,167 | 7,534 | 572 | 4 | 168 | 1 | 740 | 5 | 232 |
| 79 |  | 79 | 19 | - | - | -_ | 19 | - |  |
| 65 | 79 | $1+4$ | 16 | 1 | 25 | 10 | 41 | 11 | - |
| 408 | 254 | 662 | 103 | 9 | 94 | 14 | 197 | 23 | 49 |
| - | - | - | 6 | 1 | - | - | 6 | 1 | - |
| - | - | - | 2 | 1 | 3 | - | 5 | 1 | - |
| 679 | 190 | 869 | 9 | - | - | - | 9 | - | 6 |
| 198 | 199 | 397 | 7 | - | 6 | - | 13 | - | - |
| 29 | 7 | 36 | 4 | - | 2 | - | 6 | - | - |
| 497 | 297 | $79+$ | 18 | - | 4 | 1 | 22 | 1 | 1 |
| 27,756 | 11,366 | 39,122 | 548 | 3 | 127 | 4 | 675 | 7 | . 326 |
| 1 | - | 1 | 98 | 16 | 47 | 1 | 145 | 17 | - |
| 1,603 | 706 | 2,309 | 415 | 4 | 132 | - | 547 | $t$ | - |
| 146,425 | 164,498 | 310,923 | 11.463 | 705 | 14,812 | 558 | 26,275 | 1263 | 1731 |

'E CODE" Alternative Classification of Accidents, Poisonings and Violence AE 138. Motor vehicle accidents... AE 139. Other transport accidents AE 140. Accidental poisoning

AE 141. Accidental falls $\ldots$.... ... AE 143. Accident caused by fire and explos!on AE 144. Accident caused by hot substance, ${ }^{\text {of }}$ AE 145. Accident caused by firearm ... ... AE 146. Accidental drowning and submersion...
AE 147.-(a) Foreign body entering eye and
adnexa
(b) Foreign (b) Foreign body entering other orifice
(c) Accidents cansed by bites and stings ... spasui pur sieuiue snouzuəs jo
 (

AE 148. Suicide and self-inflicted injury
AE 149. Homicide and injury purposely

AE 149. Homicide and injury purposely inflicted
by other persons (not in war)
AE 150. Injury resulting from operations of war

AE 150. Injury resulting from operations of war E 990-E 999
Table II-continued
Static diskensaries aud out-patient depts
of hospitals Male Female $\begin{gathered}\text { Total } \\ \text { cases }\end{gathered}$

N
in
in
0
0
0
$=$
$=$
$\begin{array}{lll}1,603 & 706 & 2,309\end{array}$


| $\begin{aligned} & \exists \\ & \Xi \end{aligned}$ | $\bigcirc$ | $\infty$ | N |  |  | $m$ | $\pm$ | ＋ |  | 1 | ¢ | $\cdots$ |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\begin{aligned} & \exists \\ & \underset{\sim}{n} \end{aligned}$ | $\mathfrak{O}$ | $\infty$ | 욱 | $\bigcirc$ | in | $\cdots$ | $\pm$ | $\underline{0}$ | か | N | $\underset{\sim}{\infty}$ | $\stackrel{m}{4}$ |  |
| ò | N | N | $\pm$ |  |  | O | $\pm$ | $\cdots$ |  | 1 | $\pm$ | $m$ |  |
| $\begin{aligned} & \bullet \\ & \stackrel{0}{2} \\ & \stackrel{\rightharpoonup}{\sim} \end{aligned}$ | 10 | ¢ | $\stackrel{1}{7}$ | 1 n | $\vec{\square}$ | in | $\bigcirc$ | $\stackrel{\circ}{\square}$ | $\stackrel{10}{2}$ | $\bigcirc$ | $\stackrel{\square}{\square}$ | 8 |  |
| $\underset{6}{3}$ | $\bigcirc$ | 0 | m |  |  | $=$ | 0 | en |  | 1 | O | $\stackrel{\infty}{\sim}$ |  |
| $\begin{aligned} & \text { in } \\ & \text { ón } \end{aligned}$ | N | $\infty$ | $\underset{\sim}{\infty}$ | $\stackrel{-}{1}$ | 7 | N | $\infty$ | in | in | $\bigcirc$ | $\stackrel{\square}{\square}$ | $\stackrel{\text { m }}{\text { m }}$ |  |
| 8 足 in in | $\cdots$ | $\infty$ | $\stackrel{\text { in }}{7}$ | $\stackrel{+}{\square}$ | ® | － |  | N | $\begin{aligned} & \text { } \\ & \stackrel{y}{y} \\ & \text { of } \end{aligned}$ | $\stackrel{\text { ¢ }}{\substack{\text { n } \\ \sim \\ \hline}}$ | － | \＄ | \％ |
|  | 1 | $\stackrel{\infty}{\sim}$ | $\underset{\sim}{\nrightarrow}$ | $\xrightarrow{\text { r }}$ | त̀ | 8 |  | $\frac{0}{-2}$ | $\begin{aligned} & \text { In } \\ & \end{aligned}$ | 只 | ふ | － | 7 |
| $\begin{aligned} & \infty \\ & + \\ & \infty \\ & \text { oi } \\ & \hline \end{aligned}$ | $\cdots$ |  | 옹 | 9 | in | $\begin{aligned} & \hat{0} \\ & \text { on } \end{aligned}$ |  | $\begin{aligned} & -7 \\ & 0 \\ & 10 \end{aligned}$ | $\begin{aligned} & \hat{1} \\ & \underset{0}{1} \\ & 0 \end{aligned}$ | － | $\stackrel{9}{9}$ | $\hat{6}$ | $\stackrel{T}{\sim}$ |

（Nature of Iniury）
Sub－Total to A 137 br
Sub－Total to A 137 brought forward
AN 138．Fracture of skull ．．．．．．．．． N $800-\mathrm{N} 804$ N $805-\mathrm{N} 809$ 2
$\infty$
2
1
1
0
2
$z$ $\infty$
$\infty$
2
2
1
0
$\infty$
$z$
AN 142．Sprains and strains of joint and adjacent N 840－N 848 0
$\infty$
$\vdots$
1
1
1
$\infty$
7 N $860-\mathrm{N} 869$ 2
8
7
1
1
$\infty$
2
7

＂N CODE＂．Alternative Classification
of Accidents，Poisonings and Vollence
（Nature of Iniury）

## TABLE III

## Main Causes of Morbidity- 1956

| Diseases |  |  | $\begin{gathered} \text { In-patients } \\ \text { at } \\ \text { hospitals } \end{gathered}$ |  | Out-patients at hospitals and disfensaries 4 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Tuberculosis (all forms) ... | ... | ... | $\ldots$ | 532 |  |
| Syphilis and its sequelae |  | .. | .. | 124 | 412 |
| Gonococcal infections |  | ... | ... | 12 | 65 |
| Dysentery (all forms) |  |  |  | 135 | 2,853 |
| Schistosomiasis vesical |  |  | . | 34 | 346 |
| Filariasis (bancrofti) | ... | ... | ... | 18 | 31 |
| Ankylostomiasis ... |  | . | .. | 411 | 7,481 |
| Ascariasis ... | ... | ... | $\ldots$ | 100 | 15,092 |
| Scabies .. | ... | ... |  | 24 | 4,582 |
| Avitaminoses and other deficiency states |  |  | ... | 352 | 4,020 |
| Anaemias ... |  | ... |  | 1,868 | 34,206 |
| Asthma |  |  | $\ldots$ | 417 | 4,319 |
| Influenza ... |  |  |  | 299 | 24,546 |
| Pneumonias |  |  | .. | 230 | 25 |
| Bronchitis (all forms) | ... | ... | $\ldots$ | 585 | 4,259 |
| Diseases of teeth and supporting structures |  |  |  | 132 | 12,642 |
| Gastro-enteritis and colitis (between 4 weeks and 2 years) ... |  |  |  | 83 | 3,602 |
| Gastro-enteritis and colitis (between 2 years and over) |  |  |  | 210 | 3,335 |
| Complications of pregnancy, childbirth and the puerperium |  |  |  | 2,467* | 7,726 |
| Diseases of the skin and the cellular tissue |  |  |  | 867 | 18,274 |
| Muscular rheumatism and rheumatism unspecified ... |  |  |  | 214 | 13,767 |
| Accidents, poisoning, and violence |  |  | ... | 3,164 | 53,143 |

[^3]TABLE IV

## Morbidity and Mortality in Hospitals by groups of Diseases (International Classification-1948)

| Group |  |  |  | Male |  | Female |  | Total |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Cases | Deaths | Cases | Deaths | Cases | Deaths |
| 1 | ... | ... | ... | 1,089 | 87 | 915 | 52 | 2,004 | 139 |
| II | ... | ... | ... | 133 | 27 | 378 | 16 | 511 | 43 |
| III | ... | ... | .. | 492 | 38 | 525 | 40 | 1,017 | 78 |
| IV | ... | ... | ... | 561 | 13 | 1,307 | 14 | 1,868 | 27 |
| V | ... | ... | ... | 317 | - | 217 | - | 534 | - |
| VI | ... | ... | ... | 667 | 48 | 484 | 28 | 1,151 | 76 |
| VII | ... | ... | ... | 769 | 72 | 532 | 60 | 1,031 | 132 |
| VIII | ... | ... | ... | 919 | 54 | 683 | 34 | 1,602 | 88 |
| IX | ... | ... | ... | 1,745 | 86 | 1,279 | 48 | 3,024 | 134 |
| x | ... | ... | ... | 457 | 14 | 750 | 9 | 1,207 | 23 |
| XI | ... | ... | ... | - | - | 5,322 | 70 | 5,322 | 70 |
| XII | ... | ... | ... | 614 | 1 | 253 | - | 867 | 1 |
| XIII | ... | ... | ... | 291 | 2 | 164 | 1 | 455 | 3 |
| XIV | ... | ... | ... | 42 | 7 | 34 | 2 | 76 | 9 |
| xv | ... | ... | ... | 170 | 135 | 134 | 111 | 304 | 246 |
| XVI | ... | ... | ... | 809 | 48 | 1,059 | 24 | 1,868 | 72 |
| XVII | ... | ... | ... | 2,388 | 73 | 776 | 49 | 3.164 | 122 |
|  |  | als | ... | 11.463 | 705 | 14,812 | 558 | 26,275 | 1,263 |

Group I-Infective and parasitic diseases.
II-Neoplasms.
III-Allergic, endocrine system, metabolic and nutritional discases.
IV-Diseases of the blood and blood-forming organs.
V-Mental, psychoneurotic and personality disorders.
VI-Diseases of the nervous syatem and sense organs.
VII-Diseases of the circulatory system.
VIII-Diseases of the respiratory system.
IX-Diseases of the digestive system.
X -Diseases of the genito-urinary system.
XI-Deliveries and complications of pregnancy, childibirth and the puerperium.
XII-Diseases of the skin and cellular tissue.
XIII-Diseases of the bones and organs of movement.
XIV-Congenital malformations.
XV—Certain diseases of early infancy.
XVI-Symptoms, senility and ill-defined conditions.
XVII-Accidents, poisonings and violence.

## TABLE V

Total, Births and Deaths for period 1940-1956

|  | Year |  | Births | Deaths |
| :---: | :---: | :---: | :---: | :---: |
| 1940 | $\ldots$ | ... | 12,145 | 10,373 |
| 1941 | $\ldots$ | $\cdots$ | 13,430 | 10,436 |
| 1942 | ... | ... | 13,553 | 11,927 |
| 1943 | ... | ... | 13,604 | 10,642 |
| 1944 | ... | ... | 18,258 | 11,355 |
| 1945 | ... | ... | 16,290 | 15,277 |
| 1946 | ... | ... | 16,427 | 12,528 |
| 1947 | ... | ... | 18,926 | 8,680 |
| 1948 | ... | ... | 19,039 | 10,518 |
| 1949 | ... | ... | 20,472 | 7,384 |
| 1950 | ... | ... | 23,110 | 6,453 |
| 1951 | -.." | ... | 22,968 | 7,208 |
| 1952 | ... | ... | 24,120 | 7,447 |
| 1953 | ... | - | 23,896 | 8,299 |
| 1954 | . ${ }^{\text {a }}$ | ... | 21,926 | 8,462 |
| 1955 | ... | ... | 22,970 | 7,088 |
| 1956 | -. | ... | 24,910 | 6,739 |









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Deaths From Principal Causes 1947-1956 (International List 1938 Revision

|  |  |  | Group I |  | Group II |  | Grout III |  | Group IV |  | Group V |  | Group VI |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Year |  | No. of dths | Death rate \% | No. of dthes | Death rate $\%$ | No. of dths | $\begin{gathered} \text { Death } \\ \text { rate } \\ \% \end{gathered}$ | No. of $d t h s$ | $\begin{gathered} \text { Death } \\ \text { rate } \\ \% \end{gathered}$ | No. of dths | $\begin{gathered} \text { Deaih } \\ \text { rate } \\ \% \end{gathered}$ | No. of dths | Death rate $\div$ |
| 1947 | $\ldots$ | ... | 2,366 | $5 \cdot 47$ | 76 | $0 \cdot 17$ | 111 | 0.26 | 577 | 1'33 | 4 | 0.01 | 339 | 0.78 |
| 1948 | $\ldots$ |  | 4,052 | $9 \cdot 2$ | 88 | 0.2 | 130 | $0 \cdot 3$ | 451 | $1 \cdot 0$ | - | 0 | 378 | 0.8 |
| 1949 | ... | ... | 1,603 | $3 \cdot 60$ | 121 | $0 \cdot 27$ | 127 | $0 \cdot 28$ | 470 | 105 | - | 0 | 365 | $0 \cdot 82$ |
| 1950 | ... | $\ldots$ | 975 | $2 \cdot 1$ | 122 | $0 \cdot 3$ | 103 | 0.2 | 378 | 0.8 | - | 0 | 387 | 0.8 |
| 1951 | ... | $\ldots$ | S63 | 1.8 | 103 | 0.2 | 134 | $0 \cdot 3$ | 483 | 1.0 | 1 | 0 | 437 | 0.9 |
| 1952 | $\ldots$ | ... | 713 | 1.4 | 128 | $0 \cdot 3$ | 149 | $0 \cdot 3$ | 515 | 1.0 | 1 | 0 | 457 | 0.9 |
| 1953 | ... |  | 980 | $1 \cdot 9$ | 139 | $0 \cdot 3$ | 176 | 03 | 504 | 1.0 | 6 | 0 | 515 | 1.0 |
| 1954 | ... | ... | 665 | $1 \cdot 3$ | 145 | $0 \cdot 3$ | 196 | 0.4 | 560 | $1 \cdot 1$ | 5 | 0 | 470 | 0.9 |
| 1955 |  |  | 311 | $0 \cdot 6$ | 144 | $0 \cdot 3$ | 277 | 0.5 | 457 | $0 \cdot 8$ | 6 | 0 | 392 | 0.7 |
| 1956 | ... | ... | 354 | 0.6 | 149 | $0 \cdot 3$ | 344 | 0.6 | 413 | 0.7 | 7 | 0 | 398 | 0.7 |

Group I-Infective and parasitic diseases
,, II-Rheumatism, diseases of nutrition and of endocrine glands, other general diseases and deficiency diseases
", IV—Diseases of blood and blood forming organs
", V—Chronic poisoning and intoxication
", VI-Diseases of the nervous system and sense organs
", VII-Diseases of the circulatory system
", VIX—Diseases of the respiratory system
The International List 1948 Revision has been adopted since 1955 .

Deaths from Principal Causes 1947-1956 (International List 1938 Revision)
 $\overbrace{\begin{array}{c}\text { No. } \\ \text { of } \\ \text { deaths }\end{array}}^{\begin{array}{c}\begin{array}{c}\text { Death } \\ \text { rate } \\ \%\end{array} \\ 381\end{array}} \begin{array}{c}0.88 \\ 285\end{array})$ $\overbrace{\begin{array}{c}\text { No. } \\ \text { of } \\ \text { dcaths }\end{array}}^{\begin{array}{c}\text { Death } \\ \text { rate } \\ 1,129\end{array}} \begin{array}{c}2.61 \\ 1,099\end{array} 2^{2.3} \begin{array}{c}\text { Group } \\ 842\end{array}) 1.89$ $\underbrace{X I V}_{\text {Gronhth }}$




Group X -Diseases of urinary and genital organs
Group XI -Diseases of pregnancy, childbirth and the puerperal state
-Diseases of skin and cellular tissue
-Diseases of bones and organs of movement

- Congenital malformation
-Diseases peculiar to the first year of life
-Senility, old age
- Deaths from violence

XVIII - Ill-defined causes of death.






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Health Inspectorate











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TAble VIII

FIGURE II
CRUDE BIRTH AND DEATH RATES 1945 TO 1956

|  |  |  |  |  |  | $15$ |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  | $\ldots$ |  |  |  | \| |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  | - |  |
|  |  |  |  |  |  |  |  |  |  |  |  |

Proportion in percentages of ciseases in hospital, by Section of the International Statistical Classification of Diseases, 1948, to total cases treated in hospital.

Total Incidence $=26,275$

Proportion in percentages of cleaths in hospital, by Section of the INTERnational Statistical Classification of Diseases, 1948, to total deaths in hospital.

Total Deaths $=1,263$


## Reference

Group 1. Infective and Parasitic Diseases.
Group II. Neoplasms.
Group III. Allergic, Endocrine System, Metabolic and Nutritional Diseases.
Group IV. Diseases of the Blood and Blood forming organs.
Group V. Mental Psychoneurotic and personality disorders.
Group Vi. Diseases of the nervous system and sense organs.
Group VII. Diseases of the Circulatory system.
Group VIII. Diseases of the Respiratory system.
Group IX. Diseases of the Digestive system.
Group X. Diseases of the Genito-Urinary system.
Group XI. Deliveries and complications of pregnancy, childbirth and Puerperium.
Group XII. Diseases of the skin and cel!ular tissue.
Group Xif. Diseases of the Bones and organs of movement.
Group XIV. Congenital Malformations
Group XV. Certain Diseases of early infancy.
Group XVI. Symtoms, Senility and ill-defined conditions.
Group XVII. Accidents, Poisonings and Violence.



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400^{\circ} \mathrm{C}=33 \mathrm{NJ}
$$


[^0]:    30th December, 1957.

[^1]:    *Infirmary only. The Mental Hospital has a total bed strength of 707 .

[^2]:    （b）All other respiratory diseases
    98．－（a）Dental caries
    （b）All other cliseases of teeth and sup－ porting structures
    Ulcer of stomach ．．． Ulcer of stomach ．．．
    Ulcer of duodenum Gastritis and duodenitis Appendicitis
    Intestinal ohs
    

[^3]:    *Excluding 2,855 normal deliveries.

